INTERSECTORIALITY IN A CITY OF THE COUNTRYSIDE OF BAHIA - A PILOT STUDY

ABSTRACT

Objectives: testing the instrument of data collection from a dissertation work as knowing the vision of Professional Coordinators of the Family Health Strategy about the intersectoral articulation in the management of the Unified Health System. Method: a pilot study, of mixed type, nonrandomized, interpretative and descriptive, performed with five coordinators of the Family Health Strategy, supported by a questionnaire and by the tool UCINET 6 - NetDraw. The research project was approved by the Research Ethics Committee, CAAE N. 10810712.1.0000.0055. Results: the strategy showed validation of the instrument for data collection needing to restructure a question. The tool revealed the answers in a visualization of types of networks. Conclusion: the test was an investigative approach of more value to the design of the study that validates the theme as submerging in the field to bring out the complexity which involves intersectoral praxis in Family Health Strategy. Descriptors: Intersectoral Action; Universal Access to Health Services, Unified Health System; Health Policy; Pilot Projects.

RESUMO

Objetivos: testar o instrumento de coleta de dados de um trabalho de dissertação quanto conhecer a visão dos profissionais coordenadores da Estratégia de Saúde da Família sobre a articulação intersectorial na gestão do Sistema Único de Saúde. Método: estudo piloto, do tipo misto, não randomizado, interpretativo e descritivo, realizado com cinco coordenadores da Estratégia de Saúde da Família, subsidiado por um questionário e pela ferramenta UCINET 6 - NetDraw. O projeto de pesquisa foi aprovado pelo Comitê de Ética em Pesquisa, CAAE nº 10810712.1.0000.0055. Resultados: a estratégia demonstrou validação do instrumento de coleta de dados, necessitando reestruturar uma questão. A ferramenta revelou as respostas numa visualização em tipologias de redes. Conclusão: o teste foi uma abordagem investigativa de mais valia ao desenho do estudo, que valida a temática quanto submergir no campo para fazer emergir a complexidade que envolve a práxis intersectorial na Estratégia de Saúde da Família. Descriptors: Ação Intersectoral; Acesso Universal a Serviços Da Saúde; Sistema Único de Saúde; Política de Saúde; Projetos Piloto.

RESUMEN

Objetivos: probar el instrumento de recolección de datos de una tesis cuanto a conocer la visión de Coordinadores Profesionales de la Estrategia Salud de la Familia sobre la coordinación intersectorial en la gestión del Sistema de Salud Unificado. Método: estudio piloto, de tipo mixto, no aleatorizado, interpretación descriptiva, realizado con cinco Coordinadores de la Estrategia de Salud de la Familia, con el apoyo de un cuestionario y por la herramienta UCINET 6 - NetDraw. El proyecto de investigación fue aprobado por el Comité de Ética de Investigación, CAAE No 10810712.1.0000.0055. Resultados: la estrategia demuestra validación del instrumento de recolección de datos, necesitando reestructurar una pregunta. La herramienta reveló las respuestas en una visualización de tipos redes. Conclusión: la prueba fue un enfoque investigativo, de valor añadido para el diseño del estudio, que valida el tema como sumergirse en el campo para poner de manifiesto la complejidad que implica la práxis intersectorial en la Estrategia de Salud de la Familia. Descriptors: Acción Intersectorial; Acceso Universal a Servicios de Salud; del Sistema Único de Salud; Política de Salud; Proyectos Piloto.

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INTRODUCTION

The Healthcare System, since the Sanitary Reform, is one of the sectors that has undergone changes in the last 30 years, in the Brazilian context. This process has occurred in a continuum of comings and goings on the link implementations of public policies, which (re) build-up on the transformations of modern society in its multiverse realities: social, economic, epidemiological, and demographic, among others.

In this process, it is necessary to impose as the opening of the look and shed light for integrative thinking, complexity of the gathering factors of human living process - A new worldview that requires changes in design, overcoming language and especially the fragmenting mechanistic thinking to grasp changes in society,⁸ which requires opening look at social paradigm.⁹ This is a conception that values time - context - process in order to bring together the collaborative practice knowledge to public policy, a link that did emerge from this study - the intersectionality in the context of the Unified Health System (SUS).

According to Article 7 of the Organic Health Law 8.080/90 that regulates SUS, actions and public and private services controlled or insured should be developed from the comprehensive care,¹⁰ privileging interconnections, the concept of interdependence of systems or network networking - A systemic thinking and action.

The systemic thinking evokes the relationships and interactions of nature and has interconnected web - designing networks. In these networks, the understanding of human systems, goals are outlined in a collective manner, linking people and institutions, in order to overcome social problems and seek solutions. The network understood as a set of meaningful relationships, that when looking at health policy marks a coordinated attention points to watch people continuously and comprehensively set.⁵-⁶ Thus, it is understood that the analysis of network relations can be used to understand the social,¹¹ political, and as possible identification of problems of the actions that should be intersectoral.

Intersectionality, for its lathe, it is not a single word applicability in practice in public policy. However, there is consensus in the scientific community to be an assertive its use in everyday health actions.⁴,⁷-¹² This particular, sits restlessness that originated this study is anchored in publications on the theme of intersectionality and the identified gaps, and the theoretical premise systems approach.²,⁵,¹³-¹⁶ When we elect this premise, we did to meet a new paradigm for the management, and, of course, in attempting to overcome the fragmentation of policy, considering the subject in its totality and wholeness in the direction of the principles of equal and universal access to health care.

In this sense, by directing his gaze to the understanding of intersectoral relations, as proved necessary from a research dissertation going to field test instruments in the implementation of a pilot study for further enrichment and deepening of the theme. In particular, this study has the following objectives:

- Testing the instrument of data collection from a dissertation.
- Knowing the vision of Professional Coordinators of the Family Health Strategy on intersectoral articulation in the management of the Unified Health System.

METHOD

There was conducted a pilot test of a mixed-method study, nonrandomized, no equivalent group descriptive and interpretative, in a city where the interior of Bahia, in the context of primary care, the FHS.

The pilot test is characterized by having an experimental character, being applied to a small sample of participants.¹⁷ The completion of this test was designed to examine the reliability of the data collection instruments, with a view to organizing bipartite network, seeking to shed light on the study questions to validate them or restructure them before applying the instrument to the selected sample for the study.

The pilot study was conducted after approval of the project by the Ethics Committee in Research of the State University of Southwest Bahia (UESB) under the Certificate of Appreciation for presentation Ethics (CAAE) nº 10810712.1.0000.0055. Conducted in March and April, 2013, it had as scenario three Family Health Units, which consist of two teams of FHS, totaling six teams. These were raffled among the teams that did not corporate the 1st draw of the study, which tried to select between 27 FHS identified in the municipality case, those that compose the study sample, ie, selecting 50% plus one (total of 14 teams) and reserving the backdrop of the dissertation study.

Among the remaining 13 FHS that could enter the draw for the pilot test, only 04 units had not been drawn at first, then in order to
achieve greater validity of the draw, was excluded from the 2nd draw all units that were already covered the first draw, being interviewed 05 engineers made a part at the pilot test, with the exclusion of one away because of a medical certificate. All respondents signed a consent form. Respondents' anonymity was guaranteed, and treated in the study from a code - "E" (Interviewee), followed by the sequential number of the questionnaire: E1, E2, E3, E4, and E5.

The instrument for data collection was a semi-structured questionnaire consisting of three sections: I - Data socio demographic II - educational data, and III - five questions that sought to identify the knowledge of the respondents of concepts associated with intersectionality; actions intersectoral coordination in practice and referral in SUS, and perceptions about the SUS that envision the next 10 years. These questions were aimed at assessing the level of knowledge of respondents regarding the elements that form the municipality if the intersectoral and potential of the SUS. To complement the field work, observations were recorded in a field diary in order to support the information, the process of analyzing and understanding the data. The questionnaires took place in USF own.

The analysis and interpretation of the data was guided by interactive18 proposal, this approach was constructed a bipartite network of interconnections that provided a visualization of the municipal health system using the UCINET 6 software free access - a software for the analysis of data networks social, more specifically in the organizational studies that includes visualization tool of NetDraw network. The statements of the issue arising interviewed 05 underwent content analysis from the perspective of these authors, who converged on a large scale, the category titled: "The need for change, accessibility and transparency of the NHS."

As a complementary analysis of questions in section III scores was established that assisted in the interpretation of results. Score - 01 question: if the point "a", 50% hit the issue; alternative "b" and 30% "c" 20%. To achieve 100% of the points, respondents should tick the three alternatives; they together represent the concept of intersectionality. Thus, scoring just "a" classifies it as moderately interviewee knows that the concept of intersectionality, in cases of respondents who indicated the alternative "a" and "b", 80% of knowledge of the concept, in the cases of the respondents sign alternative "a" and "c", 70% of the concept knowledge, or known moderately, whereas the cases in which respondents only alternatives marked "b" and "c", 30% and 20% were regarded as ignorant of the concept of intersectionality.

Thus, the comparison between the ideal networking and searched through indicators of centrality, brokerage, grade and density, can establish interesting relationships of study that represents the degree of knowledge or assimilation of the concept of intersectionality. Each of the indicators of the network may even establish regional trends by groups of respondents, facilitating an immersion program in the basics of this topic.

For analysis of Question 2 as established criteria the survey respondents relate the largest number of health institutions among the 192 listed in the National Register of Health Service Establishments (CNES) in the municipality case, as well as the departments that make up the administrative framework of management municipal. In addition, we also include the Higher Education Institutions (HEIS) and religious of various natures; associations/community groups; audit; Reference Centre for Social Assistance (CRAS) and a health care institution not mentioned at CNES - Dental Clinic UE5B. As for questions 3, 4 and 5 scores were used, with the designation: convergence and divergence responses.

RESULTS

♦ Socio-demographic data

Participated in the pilot test four nurses coordinators and one nurse of FHS, aged 24 to 47 years old, mean = 33,4, the time during FHS 11,4 months, with standard bypass of 20, 46, which shows a significant the time of performance of nurses in the FHS relating to their answers about intersectionality.

Regarding employment contracts, all respondents reported not having another addition to the FHS. Given the requirement of the National Primary Care Policy on the need to work 40 hours per week in the FHS.19

About participation in refresher courses in the specific area of Family Health, all respondents claimed to have already done some improvement, being specified as follows: Information System (E1); syndromic approach (E2; E3; E4; E5); Attention integrated management of Childhood Illness (E2; E4; E5); prenatal approach (E4); clinical management of Dengue (E2); Proficiency in adult health (E2), and immunobiological update on the National Immunization Program (E5). Only one respondent reported is...
attending graduate school at Lato sensu level in the field of emergency care.

The analysis and interpretation of 05 issues of intersectionality emerged linkage of cohesion measures for two-mode network, also called bipartite network, in compliance with density, average distance, radius, diameter, fragmentation, and distance transitivity normalized20-21, and also the direction of the network indicators.

Density is the ratio between the number of existing loops by the number of possible links of the network, representing a value to ensure the perceived level of knowledge regarding the correct knowledge or of density.22

Thus, the density value that is the correct belief about the appropriate concept of intersectionality (density = 1,000) allows to find the deviation of the group of respondents in relation to the true concept of intersectionality. It was noted, however, that the achieved density of 0,600 indicates that this concept has a deviation 0,067 relative to the desired density in response network.

The average distance is intended to indicate the cohesion of this chain and can be compared to the cohesion of the desired network, forming another indicator set that can measure the level of understanding of intersectionality, in this case the distance was 2,063 and the desired distance is 1,464, so the difference between the networks is 0,599.

The length of a path is the number of edges it has, then the distance between two nodes is the length of the shortest path between them and the average distance is the length of the best network path.20-21 Thus we can say that the way good desired is the average path set by default to the desired concept of intersectionality and network misuse of this path is the distance between the existing and the desired knowledge.

Other indicators contribute to establish comparison between the desired networks and perceived by the interviewees’ network, establishing a detour that is the amount of ignorance regarding intersectionality, as shown in question 01 (section III). The results considered as formed by the ideal answer or evidencing the total knowledge about the definition of intersectionality network are: fragmentation 0,000, density: 1,000, mean distance: 1,464; radius: 2,000; diameter: 2,000; transitivity: 1; distance normalized: 1.

It is evident that compared to the amount of respondents is simple to be made by analyzing the responses, however, the larger the group of respondents, the greater the difficulty of analysis, requiring the use of this tool.

The radius, it is understood that the eccentricity is the smallest in the bipartite graph, within the components, which for this network is presented with the value of 1.000. The diameter is among its components the length of the largest geodesic in the bipartite graph, and in this study we have the value of 4.000. Regarding fragmentation found in the network, the value of 0.429, and which differs from the desired value of 0,000 was found.

Transitivity 0842 can also be compared with the transitivity of the considered ideal network that is 1,000.

This means that all of these indicators can be used to analyze or compare the network formed by the set of existing knowledge of intersectionality. This analysis, for example, may mean that the smaller radius of the network when compared with the ideal network are leveled over knowledge of the respondent. Fragmentation indicates the proportion of pairs of nodes that cannot be associated with other nodes, meaning knowledge fragmentation. Transitivity is associated with sharing the node itself by different actors, in this case, is an indicator of consensus on more or less consistent answer about intersectionality.

In the design of each question we have: Question 1, multiple choice question: “concepts that you associate with intersectionality?”. Having in observance the alternatives (a) Interdependence of health actions; (b) Intervention in health actions; and (c) the relationship between people/caregivers; the types that represent the responses were as follows:
The typologies of Figures 1 and 2 reveals that the E1 and E3 respondents have the same level of knowledge about intersectionality chose "b" representing 30% accuracy. This alternative was also chosen by E4, however, also has chosen "a" which represents over 50% accuracy, hence E4, totaled 80% of knowledge, ie moderate. The "a" was marked by E5, 50% - moderate knowledge about the concept of intersectionality. Have E-2 was the only respondent to opt for the alternative "c" 20% is unaware.

Figure 3 presents a typology articulate the services operated by the interviewees in the municipality case, the FHS, we evidence that E4 and E5 were most casting intersectoral actions in their practices, which validates the statement of the previous paragraph, as obtaining knowledge moderate about the concept of intersectionality.
Besides the typology presented in Figure 3, we can calculate the indicators of the intersectoral network: degree, closeness, and intermediation indicator vector. We have about the school; there was a variation between 0.200 and 0.600, which is corresponding to the largest health facility HGPV value.

The degree of closeness (Closeness) is the ability of an actor has to reach all nodes of the network. ° is calculated by counting all the geodesic distances from one actor to bind the other. In this case, the HGPV is the service that has a higher degree of proximity (27.400) with the FHS, followed by associations/community groups (22.833), whereas the Center for Psychosocial Care (CAPS) Guito Guigó; Reference Center for Sexual Health; Regulator complex Jequié; Municipal Health (SMS), Basic Health Unit (USB) Julia Magellan and audit have equal degree of proximity (21.632). For others, such as the Center for Endemic Diseases References Pirajá da Silva, Center for Prevention & Physical Rehabilitation Jequié (NUPREJ); Treatment Out of Domicile (PDT), Municipal Secretary of Social Development (SMDS); City Department of Education (SME); religious institutions of various kinds and CRAS how close was 18.682. HEIs in the municipality were also mentioned by respondents as intersectoral coordination network with degree of proximity 12.088.

The remaining stores present at the council if there were mentioned. The Degree of intermediation is the possibility that an actor has to mediate communication between pairs of nodes. ° These are also termed as "actors' bridges". Thus, according to Figure 4, the HGPV and associations/community groups has value of 0.001, the other establishments listed in the figure, has the value 0.000, as highlighted.

The vector indicator showed negative results, among them, the most representative corresponds to associations/community groups (-0402) and the smaller, -0.056 of the HEI.
Regarding the indicators of the intersectoral network, it can be seen in Figure 5 that respondents E-4 and E-5 have greater knowledge about actions intersectoral coordination and referral practice in the NHS.

It was identified the following cohesion measures: density of 1.000, mean distance 1.953; radius of 2.000; diameter of 2.000; fragmentation 0.000; transitivity of 1000, and normalized distance is 1.000. These measures meet the same criteria as done in the previous question, showing that each complete a scenario of perceived relative network considered a benchmark for analysis, thus the results reflect the analysis of the body of knowledge of the respondents regarding the questioning presented. Importantly, the network represents knowledge in the instant of time that the questionnaire cannot be designed as continuous knowledge of the actors in the network was applied.

When asked about the knowledge of the system to perform referrals from users, respondents answered as shown in figure 6, being the HGPV the establishment level health reference, reinforcing the closeness (27.400) previously exposed. However, it emerged from the speech the word 'universal' with degree of proximity (23.000) an understanding of the system SUS cover the subject in its entirety. However, as seen in Figure 4, the practice of directing the respondents has its greater allocation to hospital.
<table>
<thead>
<tr>
<th>Forwarding of users on the network SUS</th>
<th>Degree</th>
<th>Closeness</th>
<th>Intermediation</th>
<th>Vector indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>0.600</td>
<td>1.769</td>
<td>0.167</td>
<td>0.544</td>
</tr>
<tr>
<td>Universalization</td>
<td>0.200</td>
<td>23.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>STD Centers</td>
<td>0.200</td>
<td>1.353</td>
<td>0.000</td>
<td>0.375</td>
</tr>
<tr>
<td>UBS</td>
<td>0.200</td>
<td>1.353</td>
<td>0.000</td>
<td>0.375</td>
</tr>
<tr>
<td>TFD</td>
<td>0.200</td>
<td>1.353</td>
<td>0.000</td>
<td>0.375</td>
</tr>
<tr>
<td>CAPS</td>
<td>0.200</td>
<td>1.353</td>
<td>0.000</td>
<td>0.375</td>
</tr>
<tr>
<td>USF</td>
<td>0.200</td>
<td>1.353</td>
<td>0.000</td>
<td>0.375</td>
</tr>
<tr>
<td>NUPREJ</td>
<td>0.200</td>
<td>4.600</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>PIEJ</td>
<td>0.200</td>
<td>4.600</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>CRAS</td>
<td>0.200</td>
<td>4.600</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Figure 6. Forwarding of network users SUS by respondents.

In regards to forwarding interviewed by SUS, shown in Figure 7, and more closely 2 (18.000), followed by E5 (6.000) and E4 (1800) and is displayed in the network typology in Figure 8.

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Level</th>
<th>Closeness</th>
<th>Intermediation</th>
<th>Vector indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-1</td>
<td>0.100</td>
<td>0.900</td>
<td>0.000</td>
<td>0.214</td>
</tr>
<tr>
<td>E-2</td>
<td>0.100</td>
<td>18.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>E-3</td>
<td>0.100</td>
<td>0.900</td>
<td>0.000</td>
<td>0.214</td>
</tr>
<tr>
<td>E-4</td>
<td>0.600</td>
<td>1.800</td>
<td>0.287</td>
<td>0.953</td>
</tr>
<tr>
<td>E-5</td>
<td>0.300</td>
<td>6.000</td>
<td>0.034</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Figure 7. Referral of users to the network SUS by respondents.

Figure 8. Typology of network users to forwarding SUS network by respondents.

Being identified the following cohesion measures: density of 0.240, mean distance 1.953, 1.000 radius, diameter 3.000; fragmentation 0.590; transitivity of 0844, and normalized distance is 1.905.

In question 04 of the instrument had asked: “What do you miss in the system (SUS) for referral?” This question aimed at the overlapping issues of 02 and 03 in order to strengthen the assessment of knowledge of respondents about intersectionality. The answers were: respect, organization, logistics, skilled professionals, against references, finalizing cases against PSF and HGPV reference, as if viewing the typology presented in Figure 9.

Such responses when confronted issues 02 and 03 show moderate level of knowledge there for two respondents (E4 and E5) validating the questions of the pilot test.

In Figure 9 we identified the following cohesion measures: density of 0.275, mean distance 3.375; radius of 1.000; diameter of 8.000; fragmentation 0.385; transitivity of 0.816, and normalized distance is 0.716.
The last question of the instrument: “What do you envision the NHS in 10 years” guided the comprehensive, interactive and interpretive analysis of the data, converging on the analysis of a single categorical dimension, titled: “The need for change, accessibility and transparency of SUS”. This dimension according to respondents showed that there is need for change in the NHS in relation to compliance with its principles and guidelines, is emphasized as the core axis universal accessibility and solving the health-disease process of SUS. Also had emphasis on transparency in the organization and management of the system, as stated:

I hope you’re better, giving more opportunity to work, that standards and guidelines are met [...]. (E1)

That everyone can have unanimous participation, where everyone can know their rights, duties and guidance as universality and equality. And the three levels: Federal, Provincial, State may provide more resources, and that resources are not diverted. (E3)

[...] That can provide accessibility for all users, since this proposal is not guaranteed. [...] The health system in Brazil is advancing, but with the growing and aging population, there are not enough slots. (E4)

Other issues addressed concern the basic care - action to promote health as an imperative to assist in FHS, and suggested expanding the multidisciplinary team and its praxis anchored in the humanization.

Shall have a change in the guidelines, we have an effective role in preventing [...]. That has more transparency and organization of organ transplants; including nutritionists, physiotherapists and psychologists [...] that works with those toward the humanization policies. Anyway, I see an SUS health that serves as a model for the world. (E2)

In literature universality is underlined as a structuring principle of health policies in the state must guarantee citizens the right to health and not just the right of access to the NHS. Such rights evoke the constitutionally acquired and cannot extricate the principle of universality.23 These rights were listed by respondents that gave him a degree of significance and meaning to their implementation. As well as the transparency of the system and the agreement between the different levels of power - government, civil society, providers of public and/or private training institutions and human resources in health services. These are factors that should ensnare the policy, planning and management as a decision-making process.24

Another point stated by respondents based on the demographic and epidemiological change in the context of Brazil, the implications of aging and the increase in chronic diseases, which leads to increased demands on the health service, the NHS. This, in turn, must be prepared to meet the needs of users, ie, comprehensive care to people's health.
CONCLUSION

The completion of the pilot study as a methodological tool for testing the instrument for data collection for research dissertation proved as a strategy to add value to validate the questions 01, 02, 03 and 05; and recast the question 04. Demonstrated how necessary to make test data collection instruments, when the object of study is immersed in complexity and multidimensionality as shown unveiling of intersectionality in professional practice in the FHS.

Regarding the methods of analysis, UCINET 6 tool next to NetDraw proved revealing the answers of respondents and their view on the types of networks. It is worth noting that this is a tool that requires the researcher to field for implementation handling. In this study, this process has permeated the coming and going of the concepts set out in the mainstreaming of this tool in the interpretation of the responses of the subjects, which proved enriching the unveiling of the purpose of the study, also, at the intersection of content analysis of participants’ speech in the proposal interactive and cyclical analysis.

The pilot test was used to conduct the field research on its validation. From experience, we recommend this approach when dealing with search of complexificator approach.

REFERENCES


18. Miles MB, Huberman AM. Qualitative data analysis: an expanded sourcebook. 2th ed. SAGE Pubns; 1994.


