STRATIFICATION OF FAMILY RISK IN THE CONTEXT OF FAMILY HEALTH STRATEGY

ABSTRACT

Objective: to identify and classify families enrolled in a Basic Health Unit as the degree of familial risk. Method: a descriptive cross-sectional study with a quantitative approach, which evaluated 1,185 families, divided into five micro areas. Data were collected on the record A of the Primary Care Information System, from September 2014 to April 2015 and classified according to Coelho Scale in low, medium and high risk. Data were tabulated twice in Microsoft Office Excel 2013. Results: it was observed that the micro-area 5 had the highest number of families and classified in low and medium risk, differentiating the micro area three that showed higher classification in families in high-risk. The most prevalent risk factors were hypertension 32.91%, illiteracy 25.57%, aged greater than 70 years-old 19.49%, mental retardation 12.24%, and diabetes mellitus 9.79. Conclusion: the study provides the condition to structure and implement the health actions according to the needs of families. Descriptors: Health Strategy for the Family; Social Vulnerability; Risk Factors; Family.

RESUMO

Objetivo: identificar e classificar famílias cadastradas em uma Unidade Básica de Saúde conforme o grau de risco familiar. Método: estudo transversal descritivo, com abordagem quantitativa, que avaliou 1185 famílias, divididas em cinco micro-áreas. Os dados foram coletados na ficha A do Sistema de Informação da Atenção Básica, de setembro de 2014 a abril de 2015 e classificados segundo a Escala de Coelho em risco baixo, risco médio e alto risco. Os dados foram tabulados duplamente no programa Microsoft Office Excel 2013. Resultados: observou-se que a micro-área 5 apresentou o maior número de famílias e classificadas em baixo e médio risco, diferenciando-se da micro-área três que apresentou maior classificação de famílias em alto risco. Os fatores de risco mais prevalentes foram a hipertensão arterial 32.91%, analfabetismo 25.57%, idoso maior de 70 anos 19.49%, deficiência mental 12.24% e diabetes melitus 9.79. Conclusão: o estudo possibilita a condição de estruturar e executar as ações em saúde de acordo com as necessidades das famílias. Descriptors: Estratégia de Saúde da Família; Vulnerabilidade Social; Fatores de Risco; Família.

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INTRODUCTION

The Ministry of Health (MOH) implemented in 1994 the Family Health Program (PSF), for the implementation of primary health care and change of the current health care model in the country. Thus, the PSF was considered as a welfare method focused on the subject and family, characterized by attention by health promotion, acting through promotional interventions of health, making a new care model and the reorganization of the work process, with the objective of eliminating differences in meeting the health actions and care practice focused on disease.1-3

The PSF becomes a program at the primary level of basic care, working in partnership with other health care levels, not acting solely and exclusively but in the detailed knowledge of the population, in association with health indicators, allowing organization and direction of certain cases to the respective levels of care.4

MS concluded that the program guided strategically health actions aimed at SUS principles, surpassing initial goals when it was created. Thus, in 2006, the PSF was redefined as the Family Health Strategy (ESF), including the proposals of the Primary Health Care (PHC), as well as the model of care provided by health professionals to population.5

The APS is the structural basis of SUS, for being considered the gateway for users to health services and a priority of MS. In this context of priority access, APS has struggled to improve access, mainly due to the actions of health professionals and health practices and resources provided for families, who do not always follow the comprehensiveness of the careful production, to supply population’s needs, given that health services which often are not directed to those who most need.6

In order to ensure the completeness of the actions, from a holistic approach to the individual, based on the promotion, prevention and recovery of health, the Ministry proposes the Risk Stratification for the knowledge of different vulnerabilities, such as the risk of cardiovascular complications, nutritional and drug use and abuse, allowing also that professionals can schedule, in full, the management of health actions for people.7 Risk stratification aims to determine the social risk and health of families, reflecting the illness potential of each familiar core.8

The ESF has supports, such as home visits, the approach with families, primarily through the Community Health Agent (CHA), which help in gathering information and identifying risk factors that may affect the population, allowing the planning and execution their health actions.8 Given the above, the objective of this study is to identify risk factors and classify households according to the degree of risk in a Family Health Team of Health Unit Family.

METHOD

This is a descriptive cross-sectional study with a quantitative approach, performed in a Basic Health Unit in a city in northwestern of Paraná state. The study population consisted of families enrolled in the record A of the Primary Care Information System (SIAB) in a Health Team family, which is divided into five micro areas, totaling 1345 families, which were excluded 160, because they did not contain all the information on the card A, necessary for analysis, consisting of the final sample 1185 families.

To classify families according to risk stratification we used family risk scale, validated by Coelho8 defining the sentinels of risk that lead to personal illness or a family community. The scale consists of 14 sentinels of risk to health: diabetes mellitus (DM), hypertension (SAH), individuals aged greater than or equal to 70 years-old, individual younger with or equal to six months, and illiteracy, they punctuate the level one (1) point. Unemployment and drug addiction add two (2) points.10

The sentinels “severe malnutrition, mental, physical and disabled bedridden, and low sanitation conditions” have three (3) points on the scale. The ratio room/resident scores as follows: if greater than one (1) points to three (3), is equal to one (1) points to two (2) and less than one (1) points zero (0) 10. After the score, the factors were added and classified according to the degree of risk to low risk R1 (between five and six points), R2 medium risk (seven and eight points) and R3 higher risk (up nine points). For scores below five points that were classified as no risk families, it was considered the R0 distinction for the family classification.

We used the data of record A, registered in the period from January to December 2014. The completion of the record is held by ACS in its first visit for the family. Thus, identification of families and the completion of the record are designed to gather demographic data, age (identification by age group - are usually divided into 0-15 years and 15 years or older), sex, level of education; sanitation and housing conditions; profession; disease or said condition.
For each family we separated a rating scale and identified the family with number, specified in Form A. The scales were completed between August and September 2014 and carried out an update of the data collected during the months of March and April 2015 in view of the purpose of the study, to perform risk stratification through the data registered in SIAB, comprising all months of the year 2014.

Data were tabulated twice in the software Microsoft Office Excel 2013, followed by corrections to prevent data inconsistency. The processing and analysis took place using the R software program, where the statistical analyses were performed. Kruskal Wallis test was used to assess the difference between the risk scores of each micro-area and the Pearson chi-square test to analyze the association between risk factors. For both tests it was considered the value of p <0.05.

Table 1. Distribution of families registered second MA and descriptive measures of family risk scores.

<table>
<thead>
<tr>
<th>Micro-areas</th>
<th>n</th>
<th>%</th>
<th>Median±SD</th>
<th>3rd Quartile</th>
<th>Maximum Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 1</td>
<td>239</td>
<td>20,17</td>
<td>1±2,03</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>MA 2</td>
<td>204</td>
<td>17,22</td>
<td>1±1,69</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>MA 3</td>
<td>224</td>
<td>19,91</td>
<td>2±2,28</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>MA 4</td>
<td>268</td>
<td>22,61</td>
<td>1±1,89</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>MA 5</td>
<td>250</td>
<td>21,09</td>
<td>1±2,21</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>1185</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


It is observed that the median and standard deviation (SD) of risk score of MA three is higher than the others. The maximum score of 13 points (R3) is present in MA three. In MA one, the maximum score found was eight points (R2) (Tab. 1).

The majority (88.77%) of households was classified as R0; among families with the highest risk were classified as R1 median / SD 5 ± 0.50. Only 0.76% of households were classified as R3, with median / PD 9 ± 1.39. However, the MA three had the highest number (0.42%) of families classified as most vulnerable, the R3 group (five families). (Tab. 2).

Table 2. Distribution of families according to MA and classification of family risk scores. Maringá - PR, 2015.

<table>
<thead>
<tr>
<th>Risk for MA</th>
<th>Risk 0</th>
<th>Risk 01</th>
<th>Risk 02</th>
<th>Risk 03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nº of mailies</td>
<td>1052 (88,77%)</td>
<td>93 (7,85%)</td>
<td>31 (2,61%)</td>
<td>9 (0,76%)</td>
</tr>
<tr>
<td>MA 1</td>
<td>217 (18,31%)</td>
<td>15 (1,27%)</td>
<td>6 (0,51%)</td>
<td>1 (0,08%)</td>
</tr>
<tr>
<td>MA 2</td>
<td>190 (16,03%)</td>
<td>12 (1,01%)</td>
<td>2 (0,17%)</td>
<td>-</td>
</tr>
<tr>
<td>MA 3</td>
<td>191 (16,12%)</td>
<td>19 (1,60%)</td>
<td>9 (0,76%)</td>
<td>5 (0,42%)</td>
</tr>
<tr>
<td>MA 4</td>
<td>241 (20,34%)</td>
<td>21 (1,77%)</td>
<td>4 (0,34%)</td>
<td>2 (0,17%)</td>
</tr>
<tr>
<td>MA 5</td>
<td>213 (17,97%)</td>
<td>26 (2,19%)</td>
<td>10 (0,84%)</td>
<td>1 (0,08%)</td>
</tr>
<tr>
<td>Median±SD</td>
<td>1±1,27</td>
<td>5±0,50</td>
<td>7±0,50</td>
<td>9±1,39</td>
</tr>
</tbody>
</table>


Table 3 shows that not every family with sentinels of risk was classified in a risk group, except for the risk factor “low sanitation”. However, only one family showed a risk factor “low sanitation” and were classified as risk group due to this family have present other risk factors.
In Table 4 it is observed that the most prevalent sentinel of risk in R1 are hypertension (9.08%), mental retardation (5.82%), Older than 70 years (3.88%) and illiteracy (3.71%); and those absent are the sentinels bedridden, malnutrition, severe malnutrition and low sanitation.

In the group of R2, the larger proportions are hypertension (2.36%) and mental retardation (2.11%), since the missing sentinels are physical disability, low sanitation and malnutrition. In contrast to the classification of the R3 group, all risk factors were present, except for malnutrition, which remained absent in all evaluated families (Tab.4).

**DISCUSSION**

The National Primary Care Policy (PNAB) provides that each UBS has a maximum of three family health teams, responsible for 4,500 people, distributed between 600 and 1,000 families and belonging to the area of operation where this team operates, organizing and developing activities and health actions, allowing greater social assistance to the population. 8

In this context, the studied team performs population coverage of 1.185 families, which are distributed in five micro-areas comprising the average of 237 families, for ACS, knowing that PNAB determines the maximum number of 250 per agent, considering the location and geographical conditions, the current socio-economic situation, and the population number and accessibility to health services. 5

The study highlights the differences in risk sentries raised among the micro areas, both in the number of families, and in the risk stratification, even if they belong to the same geographical region.

Studies using the same familiar risk scale in other UBS in different states and cities showed results in common to those found in this research. The number of families without risk, represented in this study by R0,
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amounted to 88.77%, the largest proportion of the evaluated and divided families. In a study conducted in the municipality of Londrina\textsuperscript{11} in northern Parana, the percentage of family without risk showed similar data (88.8%). In another study conducted in the municipality of Contagem\textsuperscript{2} in the metropolitan region of Belo Horizonte, in Minas Gerais, the sum of families without risk was 96%.

By contrast, other studies have shown a greater number of families who were at risk, according to the classification by means of scale application. Research conducted in Porto Alegre\textsuperscript{16} showed a proportion of 31.5% of families assessed at risk. Another study, conducted in Vitória\textsuperscript{12}, resulted in 55.4% of families evaluated, presented familial risk.

These differences in risk found in the study population and the in writings of other studies reflect the diversity of social and health determinants. The diversity of these determinants characterize the individual, considering the economic condition, social, cultural support and religious, the organization and provision of public health services, which leads the way in which it relates to family and community, and their attitudes and front practices the condition of survival.\textsuperscript{7}

In this context, the National Policy for Health Promotion, deployed and implemented in 2006, coalescing with the principles of SUS, aims to meet these determinants of health, and then perform the actions that promote quality of life, decreasing prevalence of the population risk factors that are related to these determinants through promotion of health programs, thus enabling the reduction of health inequalities, promoting the healthy lifestyle among the Brazilian population.\textsuperscript{13}

The social risk in this study is represented in scale by unemployment, a relation between resident and residence, basic sanitation and illiteracy, which is a latent sentinel evaluated in families. Despite its high prevalence in absent risk (RO), illiteracy is a sentinel which calls attention by the number of families who self-reported years of study. Unemployment was not a sentinel in this large proportion; however, in families in which it is associated, there is a higher prevalence in this present risk than without risk families. Basic sanitation, present in only one family, has significance for being present in one of the families with high risk.

These social risk sentinels are related to each other and produce direct effects in relation to access to health services. Education and economic situation influence the decision making, the ability to make healthy habits and search for medical help. In a survey conducted in the United States, the results indicated that 40% of health risk factors are derived from the economic and social situation of the population, and health professionals, especially doctors, did not perform health actions in the social context.\textsuperscript{14} 5

In Brazil, studies about inequality on access to health services showed that poor and uneducated individuals had greater difficulty in the use of health services, compared to those who had an economically higher level and advanced level of education, so we understand the importance of strategic actions, performed mainly by the ESF, for this population, and according to their needs.\textsuperscript{16,17}

In this study, mental disability was the fourth sentinel with most prevalent risk between the assessed families, where 64% had some degree of risk. In Brazil, public health policies for mental health have suffered reformulations and changes, which seek to improve the quality of life and welfare. The family becomes the main source of care, a care provider, which usually identifies the needs and seek health services to ensure the best way to avoid complications and worsening of symptoms the patient's limb.\textsuperscript{15,19,20}

Studies reinforce social inclusion, as a method to retrieve the mentally disabled people and socialize them in the family, community and health services, driving full-care actions that leverage the treatment on growth and development, rather than stabilize the patient, and thus getting a positive response to treatment. The ESF is the primary intervention, working mainly through home visits, creating and effecting the link between user and professional, favoring family integration in family therapy with mental disabilities.\textsuperscript{19,21}

It is important to highlight that 160 families did not have updated data in the SIAB system during the period of data collection. This data is updated monthly by the ACS, because of many factors, their performance is limited in the area of their responsibility. Among these limiting factors, we can mention the rejection by families, the work of the FHS team member, poor perception of the work order that is performed by the professional, which interferes with the promotional nature of actions, preventive health.\textsuperscript{22}

Socioeconomic changes and the provision of equipment and especially the purchasing power of these families are also reflected in the difficulty of the ACS in carrying out their activities, especially with pregnant women,
explaining the low number of children under the age of six months-old, which is a family risk of vulnerability to have epidemiological relevance and the considerable impact on the dynamics familiar.22-4

Hypertension was the risk of sentry with a higher prevalence in all micro-areas, but with absent risk, according to the scale. The diabetes mellitus, which is also part of the group of non-transmissible chronic diseases (NCDs) in this study was the fifth sentinel with higher prevalence, resembling HAS to have absent risk when considering the total number of families.

Hypertension and diabetes mellitus are considered public health problems due to the high mortality rate and to continue growing in developing countries in recent years. These results are driven by the epidemiological, demographic and nutritional transition, becoming responsible for about 60% of global deaths what could be avoided, these makes them chronic morbidities, as a major challenge for public health professionals, considering the loss of quality of life, which creates limitations for patients to perform their daily activities and the impact on the dynamics familiar.25-6

The Strategic Action Plan for Facing Non-transmissible Chronic Diseases in Brazil, 2011-2022, has guided their goals in the development and implementation of public policies, focused on the control and prevention of NCDs and their risk factors which are consistent taking as the central axis epidemiological surveillance, health promotion and comprehensive care. In this aspect, it is possible to understand the importance of APS, through the ESF, in creating mechanism capable of linking people with hypertension and diabetes to health actions, and also strengthen the access to medications that are available by pharmaceutical care, which promotes better treatment adherence, reducing risks and complications of these diseases.27

By considering also that the increased risk of chronic diseases is directly related to aging, justified by the rapid demographic transition in Brazil, contributing to changes and social, economic and health development. The elderly population is considered a risk due to their high load epidemiological, sanitary and that, with increasing life expectancy, the chances of health injuries at this age of life are greater.28 The elderly population over the age/equal to 70 was the third most common sentinel between the assessed families. In this context, the family’s changes in their organization, the elderly becomes more favorable to health injuries, which compromises the quality of life and refers to ESF the implementation of health care for the elderly.29,30

Family risk scale was created to meet firstly the FHS responsibility of families and reorganize the work process, especially for home visits, an important tool for the management of health actions, favoring the creation of link between families and professionals, providing opportunities for the team to identify the health needs of the population in the family context, consolidating the SUS guidelines to promote, prevent and restore the health of people.29,30

CONCLUSION

The risk scale was efficient in performing the familiar risk stratification, providing ways of structuring actions and how they are enforced, in accordance with the needs of families, proving to be a useful tool which can be used by other FHS teams.

The program actions can be implemented through discussions among members of the FHS team, providing opportunities for the organization of the work process, with interaction between health professionals, setting goals and actions to be developed, leading professionals of oral health care and the Center for support of Family Health - NASF to jointly carry out educational activities, considering the high number of elderly people and people with low education and the mentally handicapped.

REFERENCES


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