## Safe community

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#### **Abstract**

**Objective:** To analyze the effectiveness of prevention programs for intentional and unintentional injuries, based on safe community principles, in children and adolescents.

**Sources of data**: An electronic search was performed in the MEDLINE and LILACS database, corresponding to the period from 2000 to 2005. For prevention of unintentional injuries, we used the following keywords: injury and prevention and community or population and intervention. For prevention of intentional injuries, we used the following keywords: violence and prevention and community or population and intervention; the age range from zero to 18 years was used as a threshold. The inclusion criteria were: original articles which evaluated the effectiveness of interventions using more than one strategy, involving a whole community or group, published in Portuguese, English or Spanish.

**Summary of the findings:** 152 studies were obtained as a result. Considering the inclusion criteria, five articles were found on unintentional injury prevention, one about intentional injury prevention and one paper addressing these two issues. All studies analyzed demonstrate benefits to children and adolescents, but in different proportions.

**Conclusions:** A restricted number of programs using the safe community concept were found. The investigations analyzed in this study presented positive results. Increased efforts to further develop this evidence are still needed, respecting local characteristics, and developing evaluation indicators that allow for a better comparison between different studies.

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#### Introduction

Towards the end of the 1970s a change in focus could be observed from prevention programs on an individual scale to community programs, with emphasis on community participation and multidisciplinary collaboration, recognizing that it is the community that can best assess and solve local problems. This process took place in parallel with the evolution of the concept of health promotion that represents a promising strategy for dealing with the multiple health problems affecting human populations and their surroundings. 2

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The Ottawa Charter for Health Promotion<sup>3</sup> defines health promotion as the process of enabling people to increase control over, and to improve, their health." This document also defines the following fields of activity for health promotion: creation and implementation of healthy public policies; creation of supportive environments; strengthening community action; development of personal skills; reorientation of health services.

One proposal that has been gaining attention as a prevention and health promotion policy is the application of the safe community concept, which was developed by the World Health Organization (WHO) and employs multiple strategies aimed at all groups environments and situations in order to promote safety and prevent intentional and unintentional injuries. According to this model a safe community recognizes that citizens have the right to live in community with safety; to participate in decisions related to safety; to decide on the priorities of actions and on what

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resources should be allocated to interventions; to be informed of risks to their safety and of what products are potentially harmful; and to receive treatment on the control of physical injuries.  $^{1,4}$ 

The basic principles of the safe communities project include: organization of the community (the involvement of all relevant organizations; relation with all relevant action sectors, especially primary healthcare; structures that make the best possible use of existing efficient processes and supplement inefficient ones; active participation by the community in problem solving); epidemiology and information (the use of appropriate epidemiological data to assess the problem in all environments; consciousness raising in the community using the media or traditional methods of publicity, with relevant data and with emphasis on local factors); intervention (community participation; interventions acceptable and beneficial to the majority; solutions that are applicable in the existing social, economic and political environment; development of social, economic and political processes through research and education; inter-sector approach; the establishment of targets and benchmarks for assessing processes and results).<sup>5</sup>

The WHO also establishes indicators by which a community can be classed as safe: infrastructure based on partnership and cooperation governed by a cross-sectional team responsible for safety promotion in its community; sustainable, long-term programs taking in all sexes, ages, environments and situations; programs aimed at high-risk groups and environments to promote the safety of vulnerable groups; programs that document the frequency and causes of injuries; measures to assess programs, processes and the effects of changes and participation in national and international networks of safe communities.<sup>4</sup>

Overall, a community-based strategy includes a collection of processes for facilitating one or more interventions, which can differ from one community to another because communities and their problems are also different. The focus of the strategy is to develop a response that adjusts to the social, political and cultural context. This means that restrictive control of interventions, in the mold of clinical trials, is not possible.<sup>6</sup>

Against this background, although programs with these characteristics are being implemented in many countries, very few have had their efficacy assessed and reported in the scientific literature. 1 Randomized and controlled studies are of questionable applicability to complex interventions such as health promotion programs. Furthermore, in studies of the impact of injury prevention programs difficulties are encountered when attempting to select a control community or control group, which are essential to this type of study. Since death and severe injuries are relatively rare in relation to the number of cases of intentional and unintentional injuries, the use of a reduction in the number deaths from injuries as an indicator of results is not convenient. From there springs the need to assess and monitor the culture of safety, the sustainability of programs and the involvement of the community their execution.<sup>7</sup>

It is necessary to confirm whether community-based prevention works in the real world and, if it does, what factors contribute to its success and which permit interventions to be replicated, including possible synergic effects of multiple actions. <sup>6</sup> This is a major challenge to be faced in research into health promotion, a fact which should not only be heeded by researchers, who are conscious of the limitations of their studies, but also by the readership of these works. The limitations encountered are the result of the nature of the field of research and should not be used to invalidate studies. <sup>6,8</sup>

The importance of discussions of the definitions, values and principles of community interventions should also be emphasized. According to Klassen et al.,9 communitybased interventions are aimed at geographically defined groups of individuals or communities, such as cities or schools; involve a collection of strategies that include: education and behavior modification; intervention in the environment and development of technology; legislation and its application. Educational and behavioral strategies aim to raise awareness of risks and the importance of safe behavior, in addition to offering encouragement and positive models. Intervention in the physical environment seeks alternatives to make it safer and modifications to safety equipment. Safety legislation and standards permit the application of already acquired knowledge on safety and risk reduction, but must be accompanied by a collection of educational actions that facilitate the acceptance of these measures and also the adoption of behavior, by parents, that can be a model for their children.

This community approach is particularly relevant to children and adolescents, given the possibilities for the development of healthy attitudes, knowledge, skills and lifestyles while still in this age group, with a great influence on peers and the social group.<sup>9</sup>

Many authors believe that the success of health promotion is dependent upon proof of its effectiveness in public health. In contrast, others believe that evidence-based medicine is inappropriate for the field of health promotion. Between these two extremes are those who advocate a combination of different forms of evidence, with the objective of creating different points of view on the acquisition of knowledge in the field of health promotion.<sup>7</sup>

Despite the significance of accidents and violence in developing countries, the concern with intervention policies is very recent. According to Blank, 10 only half of the countries in South America have national prevention strategies or consultation groups on the subject and there is a need for intervention studies on the continent.

On the national scene, worthy of mention is the National Policy for the Reduction of Morbidity and Mortality from Accidents and Violence, <sup>11</sup> which aims to establish directives for care, vigilance and prevention of morbidity and mortality by external causes by means of the development of a suite of connected and systematic actions, in conjunction with the political and social process, with the intention of adopting healthy habits and lifestyles. To this end, the policy prioritizes the fundamentals of the health promotion process and its

inter-sector and community strengthening actions, according to the items: promotion of the adoption of healthy behavior and environments; monitoring of occurrences of accidents and violence; systematization, amplification and consolidation of pre-hospital care; interdisciplinary and inter-sectorial care for the victims of accidents and violence; restructuring and consolidation of care oriented towards recovery and rehabilitation; capacitation of human resources; support for studies and research. It is believed that this policy, in conjunction with others aimed at health promotion, is an important step towards the development of safe communities in our country.

The objective of this study is to analyze the effectiveness of programs for the prevention of intentional and unintentional injuries in children and adolescents that are founded on the principles of the safe community.

#### **Data sources**

The bibliographic review for this study was performed by means of electronic searches on the MEDLINE and LILACS databases for 2000 to 2005. In order to assess programs for the prevention of unintentional injuries, the following keywords were used: "injury and prevention and community or population and intervention", with age group limited to 0 to 18 years. Programs for the prevention of intentional injuries were searched using: "violence and prevention and community or population and intervention" with the same age limits. Inclusion criteria were: original articles; studying the effectiveness of an intervention based on the safe community concept, defined as the application of more than one intervention strategy covering the whole of a community or group of individuals; dealing with intentional and unintentional injuries, in conjunction or separately; published in Portuguese, English or Spanish.

One hundred and fifty-two studies were returned by the searches. After the three authors had separately read and assessed them against the inclusion criteria, five articles were unidentified on the prevention of unintentional injuries, one on the prevention of intentional injuries and one article that covered both. These last two studies did not explicitly use the concept of the safe community. However, they exhibited characteristics that justify their inclusion in this study. The study by Margolis et al. 12 merits special attention for its scope, diversity, the breadth of cross-section and duration of the intervention and also for the analysis of the indicators of violence in conjunction with others related to the use of health services and lifestyle. This was a multifaceted intervention at the community level, in health services and families, with an in-depth analysis of the effectiveness of the program, broken down at each of these levels making it possible to adopt the model in other communities. The research by Marcelle & Melzer-Lange<sup>13</sup> was included in this study because of the characteristics of the project, which also offered mental health care and integrated family members into the community protection network. This is an example of the possibilities for acting within the new paradigm proposed for hospital care, within the principles of health promotion.

#### Synthesis of data: prevention of accidents

The study by Coggan et al. 14 took as its primary objective an evaluation of the impact and progress in reducing injuries in the community after implementation of the pilot Waitakere Community Injury Prevention Project (WCIPP), in New Zealand, in 1994, which was based on the World Health Organization's Safe Community Model. The evaluation covered a three-year period (1995-97) and involved all ages. Data is illustrated using graphs, offering the reader an ample view of the rates of hospitalizations due to unintentional injuries/100,000 inhabitants over a decade (1989-1998). Furthermore, a separate analysis was performed of injuries to children aged 0-14 years, which demonstrated a significant reduction in the rate of hospital morbidity due to unintentional injuries (p < 0.05) during the two-year period. As the authors observed, the study contributed to the development of local public policies for the prevention of accidents in childhood and adolescence.

The objective of the study by Lindqvist et al. 15 was to evaluate the effect of the Program for the Prevention of Traffic Related Unintentional Injuries, taking the severity of injuries into account. The intervention was founded on the Safe Community Model. Both control and intervention groups were from Östergötland, Sweden. The program was based on a collection of strategies (Table 1) developed with community participation, using experience from the National Prevention Program, concentrating efforts on traffic injuries. The changes were structured with reference to the country's Traffic Safety Urban Planning Guide and architectural interventions were performed at "difficult" locations. The results revealed that there was only a tendency towards a reduction in the relative risk of trafficrelated injuries. Despite the scope, importance and diversity of the strategies, a limitation was observed with relation to intervention measures aimed at the vehicledriving population, for example, use of alcohol and drugs, speed control, vehicle maintenance and others. Although it is known that these measures are part of the National Unintentional Injuries Prevention Program, the belief is that these topics should have been covered in the article. Another point that merits attention is related to the operationalization of safety measures related to transport safety systems, mentioned only incidentally in the text. The belief is that this point is of fundamental importance to the impact on reducing the risk of traffic accidents.

The objective of the 2002 study by Lindqvist et al. <sup>16</sup> was to assess the Program for the Prevention of Unintentional Injuries in children from 0 to 15 years, also taking account of the severity of occurrences. It was designed according to the Safe Community Model. The impact of the program over \ three year period was evaluated (1985-1988); both control and intervention groups were from the county of Östergötland in Sweden. There was a significant decrease in occurrences in the areas in which the prevention program was implemented as a result of the intervention measures (Table 1). However, the study does not make clear how preintervention data were collecting, thus limiting the results.

Conners et al.  $^{17}$  developed a program for the prevention of falls (steps, stairs) related to the use of baby walkers with children less than 18 months old, aiming to reduce the purchase and use of these items and their associated injuries. Several health and education bodies supported the project and developed educational materials in conjunction. This educational product (Table 1) demonstrates common situations within this context, such as children falling, drowning, rolling down stairs, etc. emphasizing that the products are not safe to use and suggesting alternative behavior. The material was distributed at consulting rooms, clinics caring for children and expectant mothers, shopping centers, bookshops, post offices and was also given to parents at the birth and when newborns were registered. The Salvation Army also cooperated, ceasing distribution of walkers in their stores. As a result, the authors report that there was a 28% reduction falls (steps, stairs) related to walkers. Nevertheless, the study has limitations in terms of results, since the period of pre-intervention evaluation was not the same duration as the post-intervention one. Additionally the findings were limited in terms of the types of fall (only from steps/stairs). There was no evaluation of cases of thermal and electrical burns or poisoning, which have a strict relationship with the use of walkers (which encourage this type of situation by affording children greater mobility). Furthermore, the evaluation did not cover all services caring for children in the community.

With the objective of assessing a program for the prevention of injuries during physical exercise, based on the safe community concept (WHO), Timpka & Lindqvist, 18 performed a quasi-experimental, non randomized study, observing a reduction in the total rate of morbidity due to injuries related to exercise, but with variations across age groups and according to severity of injury. The authors concluded that a prevention program based on educational programs and safety rules can reduce the burden on the community of injuries related to exercise, with further studies needed in order to adjust the program to be of benefit to all age groups. The study presents limitations to its assessment of the pediatric age group, since it included all children from 0 to 12 years in a single age group, taking no account of the differences observed in function of the growth and development of the child. Additionally, the article does not make clear the approach adopted for each type of physical activity or sport.

# Synthesis of the data: prevention of intentional injuries

Margolis et al. <sup>12</sup> undertook a study in a region of North Carolina, in the United States of America, with approximately 182 thousand inhabitants, involving expectant mothers with ineffective access to health services together with their children, primary care professionals and mental health care departments. The objective was to improve the care of children by means of a more effective organization of prevention services and better integration of these with the activities developed by community organizations. The study compared the rates of access to health prevention services before and after an intervention that took place at three

levels: the community, the health professionals and families. Taking this last, of interest in the present study, the intervention consisted of an intense pro gram of home visits to expectant mothers and babies during their first year of life, by a public health nurse and a professional from the mental health department. These visits included training on how to prevent both intentional and unintentional injuries and how to discipline children. The authors used a historical dataset (April 1995 to March 1996), which compared care indicators for the women themselves and their children between two groups: women participating in the program (started in March 1994 and running until July 1997) and women whose prenatal had been 9 months before the start of the program. Although there was no randomization, which is one limitation to the study, a statistically significant improvement was observed in several indicators. We will concentrate on those that are of interest to this review paper: the lower number of children hospitalized due to injuries or ingestion of substances in the intervention group, with no abuse or negligence cases being observed in either group during the study period. Furthermore, dealing with child safety, the authors observed that those families who received the intervention exhibited a statistically significant improvement in the control of poisonous substances and also in the use of appropriate child seating in cars. This therefore, is a study in which, although it is communitybased and, to a certain extent, works with the concepts of the safe community, the indicators of domestic violence and other forms of violence are worked on in manner diluted by many other indicators related to prenatal care, delivery, the use of prevention and primary care services, both by mother and child and changes in lifestyle.

Marcelle & Melzer-Lange<sup>13</sup> performed a retrospective study in the region of Milwaukee, Wisconsin, describing a population of young people attending an intervention project for the prevention of violence, based at a care service inserted in the community. This project, entitled UJIMA, has the objective of reducing rates of re-victimization by intentional injuries and premature death and also to minimize long-term psychological consequences. Two hundred and eighteen young people included on the program during 1998 were analyzed. Those cared for at the Emergency Department of Wisconsin Children's Hospital who were victims of selfharm and self-abuse were excluded. Also excluded were those being treated at other psychosocial care services. The majority of the young people included in the project had been the victims of physical aggression (62%), while 32% were victims of firearms injuries. In an attempt to analyze the impact of the project by means of the interventions described in Table 2, the authors analyzed the number of recurrences of intentional injuries and observed that just 1% of the adolescents were hospitalized again, although data were only analyzed from the Emergency Service at the Wisconsin Pediatric Hospital. Irrespective of whether there are physical sequelae, chronic exposure to episodes of violence leads to severe psychiatric disorders, such as dissociations and inappropriate social conduct, reinforcing the importance of the prevention of recurrences that is proposed by the project.

**Table 1 -** Studies developed in non-intentional injury prevention programs, based on the community and performed with individuals under the age of 18

	the age of 18					
Study	Place/ population	Intervention period	Type of study	Intervention strategies	Method	Results
Coggan et al. <sup>14</sup>	Waitakere, New Zealand 155,565 (census 1996)	3 years – 1995-1997	Quasi- experimental study, control population (147,000). Variables: demographic characteristics, urban safety, road safety, and housing.	Based on education, promotion and training.	Analysis of documentation, observation at management group meetings, interviews.	Decrease in injury hospitalisation rates (p < 0.05) ranging from 0 to 14 years-old.
Lindqvist et al. <sup>19</sup>	Motala/Mjölby Östergötland, Sweden	1 year – 1983-1984	Quasi- experimental study, intervention area: Motala, and control: Mjölby. Grouped by gender an age range.	The program was based on strategies with community participation.  Implementation of the safe way to school program, which identified risks for traffic injury and counted on the cooperation of schools.  Implementation of the cut your garden hedge program to promote better visibility of residential areas.  Roads mantainance during winter.  1 hour/week traffic education classes in all schools.  Teaching about cyclists safety for parents of infants, fostering the use of helmets and subsides for purchase.  Implementation of the shape up your bike program for the improvement of bikes performance.  - Seats safety - Prevention of elderly falls.	Analysis of all patients referred to the healthcare service with trafficrelated injuries during the study period. Two nurses were trained to classify injuries based on information from patient records. They used the ICD-8 for classification and The Abbreviation Scale Injury to measure severity. A physician was consulted whenever it was necessary.	In the study area, there was no significant reduction in the risk of traffic injury, only a tendency to decrese (odds ratio 0.91; 95% CI 0.81-1.02), after the safety community program was introduced. In the control group, no changes were observed. As to events severity, the analysis of the program impact showed that the relative risk for moderate injuries was reduced by almost half, for severe or fatal injuries remained constant, and the risk for minor injuries increased.
Lindqvist et al. <sup>16</sup>	Motala/Mjölby Östergötland, Sweden	3 years - 1985-1988	Quasi- experimental study, comparison of data collected before and after program implementation with that obtained in a neighboring control community with similar gender and age.	Cooperation with local mass media to provide regular information about injury prevention. Nurses training. Production of a video demonstrating safety modifications in the home. Indoor environments at all daycare centres were also evaluated, but required only minor modifications. Safety rounds were introduced for safety maintenance at the daycare centres a well as at playgrounds and other public facilities frequented by preschool children. Physical education teachers in the intervention area participated in an injury prevention course. Implementation of the safe way to school program. Implementation of the shape up your bike program.	Analysis of all patients referred to the healthcare service with trafficrelated injuries during the study period. Two nurses were trained to classify injuries based on information from patient records. They used the ICD-8 for classification and The Abbreviation Scale Injury to measure severity. A physician was consulted whenever it was necessary.	The all-cause injury rate was reduced more in the intervention area than in the control area exposed only to national safety programs. In the intervention area, the all-cause injury rate decreased 25%. The risk of moderately severe injuries fell by approximately half, whereas the risk of minor injuries decreased only slightly. The risk of severe injuries remained constant.

**Table 1 -** Studies developed in non-intentional injury prevention programs, based on the community and performed with individuals under the age of 18 (continuation)

Study	Place/ population	Intervention period	Type of study	Intervention strategies	Method	Results
Conners et al. <sup>17</sup>	Rochester – New York	6 months – jul/1/96 to dec/31/96	Descriptive study. Assessment of the number of children managed in a pediatric emergency service, before and after intervention.	Development of instructional material, such as leaflets, posters, brochures aimed at parents, development supporters from nurseries and other carers. Organization that take care of children, emergency services, injury prevention departments and regional centers for burns and intoxication prevention supported the intervention.	Evaluation of children under 18 months, victims of falls associated to infant walker use, presented at two emergency services for a period of 30 months, prior to and 12 months after the program implementation.	28% fewer children presented annually at the two pediatric emergency departments for walker-related falls down stairs. The reduction, however, can not be attributed only to the program but to other simultaneous changes related to other prevention programs.
Timpka & Lindqvist <sup>18</sup>	Östergötland, Sweden	1 year - 1987-1988	Quasi- experimental study, with non- random control population.	Three-level intervention: community (seminars for physical education professors), sport organizations (safety rules, fair play rules, equipment use) and e sports clubs (avoiding lesions by having an adequate physical preparation)	Prospective morbidity records, acute lesions managed in the health services during the study period classified according to ICD-8 and AIS-80 to measure severity. Only lesions associated to physical exercises were assessed.	Reduction of the total incidence of lesions as compared to control, with no statistical significance. The effect observed was most important in moderate injuries. The authors conclude that community based programmes for injury prevention during physical exercise can be effective but need to be adjusted to include all age groups and types of physical exercise.

Nevertheless, the study did not analyze the psychological impact suffered by the young people who had experienced acute episodes of violence and the influence of the project on the expression of these psychological disorders. This is the result of a limitation of the study itself.

#### **Discussion**

Many programs have been developed worldwide with the objective of reducing the causes of morbidity and, consequently, of mortality in the child population, resulting from intentional or unintentional injuries. However, programs that work on the concept of the safe community are still few in number. Even rarer are those that deal with the relation between the cost of their development, execution and assessment. Within the period analyzed for this study, just one paper analyzed the cost-benefit ratio of a safe community program, presenting conclusions in favor of its implementation. <sup>19</sup>

When analyzing centers affiliated to the WHO cooperative center for community safety promotion and the safe community network, <sup>4</sup> a high concentration is observed in Nordic countries (16), followed by Australia (four), Canada (three), other European countries (four) and Asian countries (three). The absence of programs in developing countries may be the result of the rigidity of the composition of inclusion criteria for the safe community concept, where several projects, based on the principles of health promotion, could have been included.

For the present work, we found three articles that applied the fundamentals of the safe community. The remaining studies (four) were included because they exhibited characteristics similar to those of the WHO concept. This widening of scope allows the reader to understand the most current conception of injury prevention, which is based on interventions that generate transformation to the environment and the community, and not only the individual and family, as Mace et al., <sup>20</sup> or describe or like studies by

**Table 2 -** Studies developed in intentional injury prevention programs, based on the community and performed with individuals under the age of 18

Study	Place/		Type of study	Intervention strategies	Method	Results
Marcelle & Melzer- Lange <sup>13</sup>	Greater Milwaukee metropolitan area, Wisconsin, USA	The program initiated in September 1995, and the study was conducted in 1998.	Descriptive and retrospective study with 218 youngs who presented to an urban pediatric Emergency Department	A hospital social worker and a Project UJIMA community liaison are called when a patient arrives at the Wisconsin Child's Hospital Emergency Department. Community liaison provide support to the patient and family, introduce program services and seek parental consent. Community liaisons arrange patient followup, including home visits prior to discharge, help in the therapeutic treatment after discharge, referral to mental health services, introduction to group activities and integration of the family in the community protection network.	Assessment of intentional reinjuries.	Of the children who were seen by the Project UJIMA staff, only 1% have returned to the Emergency Department as a result of repeat interpersonal injury. Other emergency services available in the community were not included in the study.
Margolis et al. <sup>12</sup> *	Durham, Carolina do Norte, USA (population 182,000). Pregnant mothers and their < 2 year-old children since they present- ed for prenatal care and involved 2 to 4 visits per month through the infant's first	From July 1994 to July 1997.	Time series.	Three-level intervention: community level, practice-level and family level. Family-level interventions consisted of an intense program of home visits to pregnant women and babies during the first year of life. The visit was provided by a public health nurse and an early childhood educator from the mental health department. The home visiting intervention included training in injury prevention and discipline.	Assess rates of preventive services in office practices before and after the intervention. Indicators of care to children and women. Hospital stay resulting from injuries and acute intoxication.	Decreased number of children who stayed in hospital because or injuries or substances intake in the intervention group. Cases of abuse or negligence were not observed in both groups. Statistically significant improvement in the control of venomous substances, as well a in the use of car seat for kids.

<sup>\*</sup> This study assessed the occurrence of either intentional or unintentional injuries.

Kendrick et al. $^{21}$  and Watson et al. $^{22}$  which assess family interventions (home and behavioral) and not community ones, despite combining several strategies.

Additionally, one study was located that assessed the implementation of a safe community program $^{23}$  and three that, despite presenting results, did not analyze impact by age group.  $^{24-26}$ 

It is opportune here to cite the review by Nilsen, who assessed studies of the effectiveness of community-based interventions, which adopted a variety of strategies, directed and different groups, environments and situations, for the prevention of intentional and unintentional injuries. The author observed the difficulty of assessing such interventions as a result of the interaction between different variables and

of the difficulties in establishing a relationship between the process and the result and in identifying the factors responsible for the success of programs.

All of the work analyzed in this study was performed in developed countries, providing evidence of the difficulty of carrying out such work in developing countries. The elevated costs involved in conducting these studies and the problems with evaluation of healthcare promotion and prevention are limiting factors, principally due to the complexity of the theme and the difficulty of controlling for all the variables involved. In agreement with Rivara, <sup>27</sup> we believe that there is a need for investment in well-conducted epidemiological studies, with emphasis on case-control, cohort and ecological design studies, which can contribute to the process of knowledge acquisition on the questions that involve the safety of children and adolescents; in particular with respect of the effectiveness of interventions.

In addition to this, several authors have indicated the need for questions to be asked about the methodology of effectiveness studies, since the impact on public health involves more than just efficacy, and they observe that, in such studies, assessment indicators refer to structure and process and not to analysis of the results. Many program assessments may be being refused by the reviewers at journals since it is not always possible to control the variables involved.<sup>6,8</sup> This fact may explain, in part, the small number of publications found in the most used databases.

We observe that publications from Central and South America limit themselves to describing intervention strategies, <sup>28</sup> identifying risk factors<sup>28</sup> and assessing knowledge acquired by family members, <sup>29</sup> in addition to proposing theoretical and conceptual models. <sup>30,31</sup> Added to this is the small, although growing, interest within the scientific community in studying these issues.

Important reviews of the subject merit attention. These include those by Spinks et al.<sup>32</sup> and Towner & Dowswell,<sup>7</sup> in which the authors perform critical and consistent analyses of research into community impact, in addition to pointing out suggestions for the development of further programs.

The inclusion of these issues on the Brazilian public health agenda only recently is the result not only of the existence of other priorities that characterized the twentieth century (and which resulted in an impressive drop in infant mortality), but also to the explosion of indices of mortality due to external causes in all social classes, no longer restricted to populations with less spending power where mortality due to injuries is masked by problems originating from social exclusion.

Now that the National Policy for the Reduction of Morbidity and Mortality from Accidents and Violence has been established in our country, it is to be expected that further work will be done, both for diagnosis and for assessment of those programs that are already implanted, in an attempt to direct public policy that takes into account local characteristics and which is thought out according to the wider concept of health, with displaced the focus from the

individual and their behavior to the environment, the community and quality of life.

In conclusion, it can be observed that few studies exist in the literature that offer evidence of the effectiveness of interventions that have adopted the safe community concept. Those investigations that were analyzed here present a positive picture. However, it is necessary to increase efforts to develop this body of evidence, respecting local characteristics and developing assessment indicators that allow for better comparison between different studies.

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