



Iranian Designated Safe Communities: A Quantitative Analysis

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Abstract

Background: The safe community initiative was developed by the World Health Organization following the increasing trend in the frequency of injuries. Similar to most countries, it was implemented in Iran to improve community safety. The aim of this study was to quantitatively analyze the Iranian designated safe communities.

Methods: Using a descriptive design, this study analyzed the reports by Iranian designated safe communities (n, 33) in 2016. Data were extracted from the website of WHO collaborating centre on community safety promotion in Sweden, using an objective-based questionnaire. Microsoft Access 2010 was used for data management, and SPSS version 21 was utilized for data analysis.

Results: The Iranian designated safe communities were all located in 3 out of 31 provinces of Iran, namely Tehran, Fars, and Khorasan Razavi. All the safe communities had covered traffic safety. In total, 69.7% of the safe communities reported the incorporation of occupational and sport safety activities, as well as violence and suicide prevention interventions. No significant difference was found among provinces in the frequency distribution of improved safety issues ($P > 0.05$). Moreover, 26 (78.8%) communities reported having an injury surveillance system.

Conclusions: Iranian safe communities used a set of strategies to improve community safety. Accordingly, the neglected areas must be acknowledged by other interested communities. Moreover, rigorous scientific studies are required to assess the effectiveness of interventions.

Keywords: Safe Community, Intersectoral Action, Safety Promotion, Iran

1. Background

Injury is one of the most challengeable public health issues in the world (1). Every day, 16,000 people die from injuries, leading to more than 5 million deaths per year (2). Additionally, millions of survivors are disabled, accounting for 202 million disability-adjusted life years (DALYs) (3).

Road traffic injuries (RTIs), as the leading cause of injuries, are expected to be the seventh leading cause of death by 2030 (4,5). Falls, self-harm, interpersonal violence, drowning, burns, collective violence, legal interventions, and poisoning are among the other leading causes of injury in the world, respectively. Moreover, other unintentional injuries follow RTIs in terms of prevalence (6). On the other hand, reports by WHO eastern Mediterranean region (EMR) countries are different. Based on the data reported in 2014, collective violence and legal interventions followed RTIs in terms of prevalence (7). Overall, according to WHO, Injuries and violence contribute to 12% of deaths in EMR countries (8).

Despite the high prevalence of injuries in the world, most countries do not recognize safety promotion as a priority (9). Safety is a prerequisite for human health and welfare and is regarded as a basic human need. Accordingly, it must be considered as a primary goal in different nations (10). Moreover, equal right to health and safety is a fundamental WHO concept, which can be achieved by reducing hazards and differences among social groups (9).

The safe community initiative is a prominent concept, which was introduced in the 1980's to systematically promote community safety (10). A safe community is described as an appealing place to live and work. In these communities, people can perform their daily activities without harm, risk, or fear (11). The safe community initiative is based on local cooperation, participation, and capacity building of community to reduce injuries and promote injury-reducing behaviors (12). This concept encourages multidisciplinary and intersectoral collaboration in safety promotion, while paying more attention to the context (13,14).

Equity and communal, national, and international participation are introduced as the main principles of safe communities (9). Today, there are 362 designated safe communities, 33 of which are located in Iran. Overall, RTIs are the second leading cause of death in Iran, following cardiovascular diseases (15). The cost of these injuries is 7.2 billion US dollars, equal to 2.19% of Iran's gross domestic production (16). Moreover, there are other injuries, such as intentional and unintentional injuries, which cause death and disability in Iran (17).

The first safe community in Iran was introduced in Kashmar in 1998 and was later designated as a safe community in 2007 (18). Designated safe communities implement injury prevention programs in an intersectoral structure for safety promotion in all populations (9,19). In a study by Svanstrom et al. on designated safe communities, established before 2005, inconsistency was reported in reports, approaches, and methods of safety promotion in communities (20).

Despite the confirmed effectiveness of safe communities, only some studies have been performed in developed countries, while there is limited literature in developing countries (21). On the other hand, analysis of designated safe communities can provide information for other communities interested in safety promotion in Iran. With this background in mind, the aim of this study was to quantitatively analyze Iranian safe communities and to present a general image of these communities.

2. Methods

This descriptive analytical study was conducted in 2016. All designated safe communities from Iran (n, 33) were reviewed, using the website of WHO Collaborating centre on community safety promotion in Sweden (22). Overall, a designated safe community is a community implementing safety promotion initiatives, evaluated by the international safe community certifying center. Each safe community is designated for 5 years and must be redesignated. In general, a designated safe community must meet the following criteria:

- 1) An infrastructure based on partnership and collaboration, governed by a cross sectional group, responsible for safety promotion in the community
- 2) Long-term and sustainable programs covering genders, all ages, environments, and situations
- 3) Programs targeting high-risk groups, environments, and programs promoting safety
- 4) Programs based on the available evidence
- 5) Programs documenting the frequency and cause of injuries

6) Evaluation measures to assess programs, processes, and effects of change

7) Ongoing participation in national and international safe community networks (22)

The criteria were evaluated by the experts from the certifying center through reviewing the documents and visiting the community site. For data collection, review strategies were adopted for assessing the websites and documents. Data were collected, using an objective-based, researcher-made questionnaire.

The main variables included the location of safe community, population, age of the community, interventions in different locations, publications, different intervention groups, international commitments, and participation in safe community conferences. Microsoft Access 2010 was used for data management, while SPSS version 21 was utilized for data analysis. Descriptive statistics, such as frequency tables and Chi square test, were used for data analysis.

3. Results

In total, 33 designated safe communities were established in Iran, the majority of which were in Tehran Province (n, 22; 66.7%), followed by Fars (18.2%) and Khorasan Razavi (15.2%). The first safe community in Iran was established in 1998 in Kashmar, and the last one was designated in 2015 (Mashhad District 1, Khorasan Razavi).

About 30% of the safe communities in Iran were designated 2 years after the onset of the program. The longest interval between the program onset and designation was reported in Eqlid county, Fars province (a 12-year interval from 1999 until 2011). The mean population of the communities (except Tehran Metropolitan) was 256 921, ranging from 38 395 in Arsanjan to 880,000 in Tehran District 4.

All the Iranian safe communities employed a form of intervention to improve traffic safety in the community. Occupational safety (mostly including brochure publication and educational classes) and sport safety interventions received the least attention in Iranian safe communities (69.7%). On the other hand, school and home safety programs were introduced in most communities (90.9% and 87.9%, respectively). No significant difference was found among provinces in the frequency distribution of improved safety issues ($P > 0.05$). The safety issues covered by Iranian safe communities are reported in Table 1 with respect to the province.

Nearly half of safe communities (48.5%) did not implement any interventions for violence prevention. Moreover, none of the safe communities in Fars Province applied violence prevention programs. On the other hand, suicide prevention programs were implemented in 69.7% of the

Table 1. The Safety Issues Covered by Iranian Safe Communities

| Safety Issues | Provinces | | | | | |
|---------------------|------------------|----|------|----|-----------------|----|
| | Tehran | | Fars | | Khorasan Razavi | |
| | Yes ^a | No | Yes | No | Yes | No |
| Home safety | 18 | 4 | 6 | 0 | 5 | 0 |
| Traffic safety | 22 | 0 | 6 | 0 | 5 | 0 |
| Occupational safety | 14 | 8 | 6 | 0 | 3 | 2 |
| School safety | 20 | 2 | 6 | 0 | 4 | 1 |
| Sport safety | 13 | 9 | 6 | 0 | 4 | 1 |
| Leisure safety | 18 | 4 | 4 | 2 | 3 | 2 |

^aNumber of safe communities.

communities (Figure 1). Interventions on violence and suicide prevention mostly included classes for young people at schools and universities, conferences, and distribution of brochures and posters.

Based on the reports, 75.8% of the safe communities had employed a form of intervention for high-risk groups, including the elderly, women, motor riders, addicts, and students. Moreover, 26 (78.8%) communities reported having an injury surveillance system. It should be noted that 54.5% of the communities had different publications on safe community interventions.

Peer-reviewed articles or academic publications were not reported in any of the communities. Publications were mostly in form of brochures, books or booklets. In addition, participation in international conferences was one of the indicators of safe communities, which was only reported in 5 Iranian safe communities. Nearly 50% of the communities participated in national safe community events; however, international conferences were only held in Tehran.

4. Discussion

The Iranian safe communities had implemented major plans to improve the safety of communities. Based on the findings, safe communities were limited to 3 provinces. However, according to the reports by the Iranian legal medicine organization, these provinces only accounted for 31.5% of violence, 23.4% of road traffic deaths, and 27.2% of road traffic injuries in 2015 (23).

As reported by Gosselin et al. (2009), more than 90% of deaths due to injuries occurred in low- and middle-income countries (24). Globally, Iran is ranked the fifth place in road traffic mortality, while it is in the first place among EMR countries (25). The effectiveness of the safe community initiative has been reported in the literature

(21,26,27). Accordingly, this concept should be promoted and expanded across Iran.

Every year, 350,000 workers lose their lives due to occupational injuries (28). In fact, this problem has become a public health concern, especially in developing countries (29). The rate of occupational accidents among Iranian construction workers was 11.25 per 1000 workers in 2012 (18,557 DALY) (30). Occupational safety is expected to become one of the most important areas in safe communities of Iran; however, evidence suggests otherwise.

In general, occupational safety is one of the most important safety issues in safe communities, as noted in Sweden safe communities (20). Negligence of occupational safety or implementation of routine interventions, such as brochure publication and safety classes, are not suitable solutions to this issue. On the other hand, development of new regulations, especially for construction contractors, promotion of workplace safety, and improvement of workers' attitudes towards safety rules are necessary.

In this study, safe communities' inattention to violence prevention was a major shortcoming, while based on a study by Svanstrom et al. 73.8% of the designated safe communities had interventions for violence prevention in 2005 (20). Overall, one of the global social safety issues is violence, which accounts for 1.6 million deaths each year (31). Violence prevention strategies should be in accordance with scientific research to be more effective. Moreover, safe communities should empower and engage the community and implement locally applicable solutions to address violence-related issues.

As mentioned in the literature, community participation is one of the basic principles of the safe community movement (9). Engagement of community members in safety promotion programs shows that people not only live and work in the community, but also accept a social responsibility to identify the community's needs, problems, and potential to prevent injuries (19).

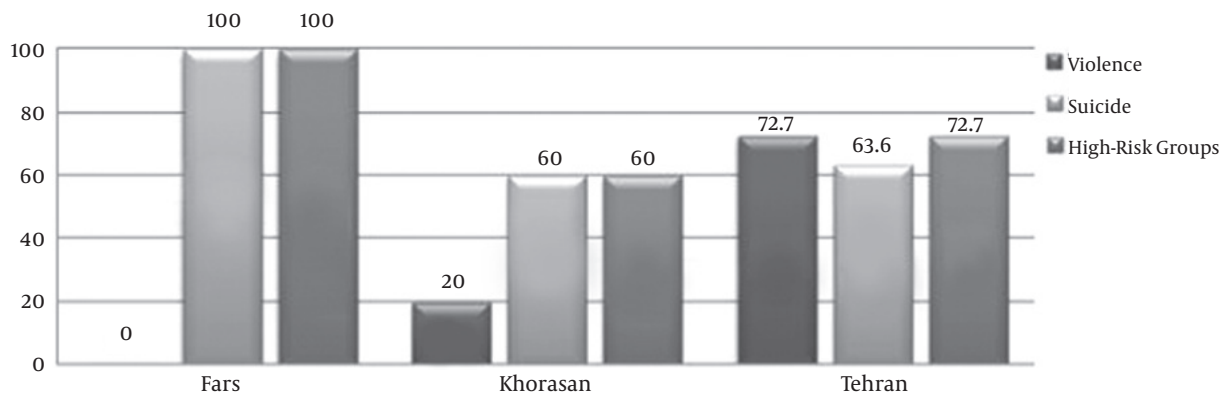


Figure 1. The Frequency Distribution of Interventions on Violence, Suicide, and High-Risk Groups in Safe Communities

Spinks et al. (2009) in a Cochrane review reported insufficient and inconsistent evidence on the effectiveness of safe communities, which makes it difficult to draw a definite conclusion in this area (27). Use of scientific methodologies to evaluate the effectiveness of interventions, as well as initiative documentation, not only facilitates the decision-making process in the community, but also promotes other community performance benchmarks.

Analysis of the effectiveness of safe communities was one of the most important neglected areas in Iranian safe communities (no peer-reviewed articles were detected). This issue has been acknowledged in other safe communities, especially those implemented in Sweden (20). In the organization of safe communities, use of a scientific team, including academic members of relevant fields, can promote effectiveness. Moreover, defining a set of process and outcome indicators for monitoring safe community implementation may be useful.

4.1. Conclusions

The Iranian safe communities have made major efforts in improving community safety in various areas. However, less attention has been paid to occupational and sport safety and violence prevention programs. Therefore, development of a nationwide safe community movement is strongly suggested. Moreover, other communities, interested in the implementation of safe communities in Iran or other countries, are suggested to provide sound evidence for developing more effective strategies.

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