Moving Knowledge to Action: Applying Community Coalition Action Theory (CCAT) to Bus Seat Belt Usage

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**Background:** The Community Coalition Action Theory (CCAT) is a form of theories for the change across organizations. A community coalition is a structured arrangement where all members can work together on a common goal and objective. This article aimed to present how to use of CCAT framework to design interventions for increase seat belt in the bus.

**Methods:** The current article focuses on applications of the CCAT to provide framework for the development of activities and interventions related to bus seat belt usage.

**Results:** The CCAT have fourteen constructs include stages of development, community context, lead agency or convening group, coalition membership, processes, leadership and staffing, structures, pooled membership and external resources, member engagement, collaborative synergy, assessment and planning, implementation of strategies, community change outcomes, health/social outcomes and community capacity.

**Conclusion:** CCAT is one of the best practices that can be achieved through joint activities of multiple organizations that lead to improved health behaviors.

**Key Words:** Community Coalition Action Theory (CCAT), Bus seat belt, Intervention

INTRODUCTION

Theories of organizational change are divided into two categories of “change within organizations” and “change across organizations” [1].

The Community Coalition Action Theory (CCAT) is a form of the change across organizations. CCAT is formal, multipurpose and often long-term alliances that work locally or regionally and usually have paid staff. The community coalition is represented by individuals and organizations which come together long term, even after a goal has been achieved. The theory focuses on fourteen constructs: of which a few are coalition development, coalition functioning, development of coalition synergy, and creation of organizational and community change. CCAT seeks to explain or predicts improved organizational structure, function, and effectiveness [2]. The fourteen constructs identified by Butterfoss & Kegler (2009) include stages of development, community context, lead agency or convening group, coalition membership, processes, leadership and staffing, structures, pooled membership and external resources, member engagement, collaborative synergy, assessment and planning, implementation of strategies, community change outcomes, health/social outcomes and community capacity.
engagement, collaborative synergy, assessment and planning, implementation of strategies, community change outcomes, health/social outcomes and community capacity (Fig. 1). CCAT hopes to predict several outcomes including: improved organizational structure, function and effectiveness; community changes such as environments, policies and practices conducive to healthy living; increased community capacity and improved social outcomes [1].

In the present paper, an example of a CCAT-based intervention design is presented for a complex, multidimensional and multisectoral problem like the seat belt usage in a bus, which can inspire interventions for changing behaviors for authorities and planners.

BUS SEAT BELT USAGE PROMOTION BASED ON CCAT FRAMEWORK

The current article focuses on applications of the CCAT to provide framework for the development of activities and interventions related to bus seat belt usage.

1. Development stages

The name of the coalition was selected to be BUSBUC as the acronym of Bus Seat, Belt Usage Coalition.

The BUSBUC formation stage begins with defining the problem of not using the seatbelt on the bus, determining the core, and attracting and organizing coalition members. At this stage, the role of the members is assigned and they are given the necessary training. This phase is expected to take 8 to 12 months. At the maintenance stage, BUSBUC officially begins by need assessment and information gathering about using the seatbelt in bus. At this stage, BUSBUC operational plans and strategies are implemented to enhance the use of a seat belt and then they are evaluated. Based on the results, decisions evaluation will be made recycling through formation and maintenance stages of BUSBUC. This stage takes 2 to 3 years. In the institutionalization stage, institutionalization is made by internal and external assessment of BUSBUC to institutionalize the coalition in the community as a long-term program [3-6].
2. Community context

Among all kinds of vehicles, use of seat belt has been left unattended for bus passengers. Many campaigns have been launched to increase the use of seat belts in cars in Iran, but so far no intervention plans have been put in place to promote the use of seat belts among bus passengers [7-9]. Many contextual factors can affect the development of BUSBUC in Iran, for example, we can refer to Iran’s economic sanctions and its role in coalition decisions. Several preliminary studies are expected to identify the demographic, socio-geographic, economic, political, and other factors affecting BUSBUC. Qualitative research can have a higher priority in this regard.

3. Lead agency or convening group

At this stage, from among the coalition members, the traffic police are determined as a convener organization due to direct association with the subject, high enforcement guarantee, and being more systematic than other organizations. The physical space is deployed by the traffic police and the BUSBUC Secretariat is established in this area. The physical space includes 4 rooms for staff and one meeting room with a capacity of at least 50 people. All the necessary equipment and facilities are provided by the members of BUSBUC. Consumption materials are also provided through the BUSBUC common budget. After providing physical space and the equipments, the sessions begin. The traffic police are assigned to hold the BUSBUC meetings. Employment of full-time and part-time employees, sponsorships, as well as support from voluntary and community-based organizations and academic centers are considered as the first agenda for the meeting. Full-time staff includes secretary, secretary-general, financial manager, and servants. Part-time staff includes specialists for the problems at hand from among coalition members.

4. Coalition membership

The members of BUSBUC will chose from a wide variety of professionals and specialists and interested and related experts from relevant organizations. Related organizations include: Road Maintenance and Transportation Organization, Highway Police, Bus Companies, Municipal Terminals Organization, Automakers (bus manufacturers), Universities, related research centers, bus driving training centers, IRIB, and Islamic Consultative Assembly.

5. Processes

Operations and processes are the coalition’s mechanisms for communication among staff and members, decision-making, and conflict management.

At this stage, members of the Coalition determine the policies and activities of BUSBUC at various meetings. Among the policies and activities proposed for this coalition, we observe:

- Formulation of supervisory policies for car manufacturers to check bus seatbelts
- Development of regulatory policies at bus terminals for annual check of seatbelts in the technical examination
- Developing advertising policies and activities with the help of IRIB, academics, professionals and traffic police to produce and broadcast educational programs such as teasers, reports, short films and announcements
- Development of policies and controls before and during the bus riding

One of the vital processes in the coalition is to identify a mechanism for communicating with members. In BUSBUC, the Electronic Coalition System (CES) is considered to be established.

Establishing a balance between the tasks and the assigned activities of each member with their organizational inherent mission is considered at this stage.

Voting and majority opinion are used to resolve probable conflicts in BUSBUC. In every meeting, the approvals of the previous sessions are assessed and successful members are identified.

6. Leadership and staffing

In BUSBUC, after the employment of part-time and full-time employees, a formal notification is made for them and the selection of the leaders, directors and spokespersons of BUSBUC is conducted through votes of members. At this stage, the coalition leaders will outline the tasks of each member. It is possible to add coalition membership during the coalition process, and this will be discussed and voted on by the board of the BUSBUC.
Work to maximize member participation of BUSBUC, prepare the job description, examination and increase of job satisfaction of the employees, provide regular training on BUSBUC issues, email reminders and phone calls about meetings, and follow-up when absent as well as the support of members, are among the plans that managers should pay attention to during the implementation of BUSBUC.

7. Structures

BUSBUC will have rules and regulations that will be discussed and then voted by the members. Identifying inclusion and exclusion of the criteria for members, financial rules, defining the tasks and responsibilities of each member, managers, and employees, as well as defining decision-making and conflict resolution policies are among the most important BUSBUC laws and regulations.

Another important structure in BUSBUC is the operational plan. An Intervention Mapping approach that suitable for intervention programs will be used to design an operational program.

Creating specialized workgroups and defining their tasks are important structures in BUSBUC. The 5 basic workgroups of BUSBUC have been predicted, including:

1. Training workgroup
2. Research workgroup
3. Design and engineering workgroup
4. Regulation supervising workgroup
5. Evaluation workgroup

8. Member engagement

The higher involvement of members in BUSBUC, the more likely it will achieve its goals. For the higher involvement of the members, BUSBUC managers will organize regular trainings. Also, by continuous reporting of the level of achievement of the goals and the positive results, the members’ interest is increased. In BUSBUC, attempt will be made to use various mechanisms for continuous communication with members such as ongoing contact with participating, regular meetings, entertainment programs, email communications, phones and websites. Also, to increase the motivation of members, incentive mechanisms will be used for members who have the best performance.

9. Pooled member and external resources

BUSBUC does not have an independent budget, and all of its financial and human resources are to be provided by the members. The way of provision of these resources is discussed and approved at the meetings.

In BUSBUC, a comprehensive supporting program such as advocacy in community is also required to increase the grant funding. Television and radio advertisements, posters, brochures, and billboards are among the media that will be used for this purpose.

10. Assessment and planning

The operational plan is one of the most important structures in BUSBUC. This program will be designed based on the intervention mapping approach. Intervention mapping includes six steps and a number of tasks in every step, in which, it uses a variety of theories, patterns and evidences [10].

11. Implementation of strategies

Strategies in the BUSBUC operational program are developed in three areas of education, monitoring and regulations, as well as design and engineering. For each strategy, its related activities will be defined in accordance with the definition, and notified to the coalition members associated with that strategy, a timetable will be designed to implement all predicted activities.

For all BUSBUC activities, evaluation elements will be defined and evaluated during and at the end of the program. Considering that BUSBUC takes several years from designing to implementation and evaluation, it will be reviewed annually on the basis of the results of the evaluation in the operational program.

12. Community change and health outcomes

The effectiveness of each intervention program will be measured based on the objectives with predetermined indicators. Improvement in health and social outcomes are two final indicators that indicate the effectiveness of the coalition.

BUSBUC has many objectives, and for some of them, there may not be measurable indicators.
The most significant measurable health-related consequences in BUSBUC are the increased use of seatbelts by bus occupants and reduced mortality and injuries in bus traffic accidents. Also, modifying and formulating laws and regulations related to seat belts, equipping buses with standard seatbelts and provision of internal cameras are other measurable indicators.

In BUSBUC, it is tried to involve organizations that are associated with the use of seatbelts in terms of size and mission. At a wider level, the coalition is aimed at influencing larger institutions such as the legislature. In addition, the integration of BUSBUC into routine training programs for bus driver and other educational institutions is also a measurable consequence of the implementation of BUSBUC. Increasing the number of provinces implementing the BUSBUC is also considered by the coalition managers.

BUSBUC can provide an opportunity to empower coalition members to participate in community programs in other areas. Experts trained in this coalition can serve as a consulting and technical advisor. The experience gained in BUSBUC can be used to design related educational interventions in other vehicles such as heavy ones.

BUSBUC is implemented aiming at promoting the use of seat belts in the bus, however, at a higher level, it promotes the social conditions such as changing the type of buses or designing new chairs and seatbelts.

**CONCLUSION**

Promoting the use of seat belts in the bus is beyond the control of merely one organization due to multidimensional and multisectoral nature. So forming a coalition is very significant and can increase the effectiveness of interventional programs. CCAT is one of the best practices that can be achieved through joint activities of multiple organizations that lead to improved health behaviors.

One of the most important limitations of this theory is the large number of steps and structures, as well as its complexity, which has led to its lesser application in the design of health interventions by the researchers.

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