Barriers and facilitators to implementing Communities That Care (CTC) in different countries

Principais barreiras e facilitadores para a implementação do Communities That Care (CTC) em diferentes países

Barreras y facilitadores para implementar Communities That Care (CTC) en diferentes países

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ABSTRACT
Communities That Care (CTC) is a prevention system that aims to support the healthy development of children and adolescents through the organization and training of community coalitions aimed at implementing evidence-based preventive interventions, focusing on drug...
abuse and involvement with violence. The objective of this article is to present the current state of knowledge on the primary barriers and facilitators for implementing or adapting CTC in different communities and countries. This is an integrative review, with a search performed in the databases: Pubmed, Web of Science, Scopus, PsycINFO and Virtual Health Library (VHL), using the indexes ("Communities That Care" OR "CTC") AND (fidelity OR implementation). Among the 16 studies selected based on the inclusion/exclusion criteria, most had a quantitative or mixed approach, with an experimental or quasi-experimental, longitudinal design, published between 2005 and 2021. The main barriers faced were: coalition mobilization, community readiness challenges, epidemiological data collection, and the use and implementation of evidence-based preventive interventions. As facilitators, the use of training and provision of technical assistance was identified to increase community readiness, to leverage the work of the coalition and to sensitize the community on the importance of implementing evidence-based interventions.

**Keywords:** disease prevention, preventive health services, community health planning, implementation science, communities that care.

**RESUMO**

O Communities That Care (CTC) é um sistema de prevenção que visa apoiar o desenvolvimento saudável de crianças e adolescentes a partir da organização e capacitação de coalizões comunitárias direcionadas para a implementação de intervenções preventivas baseadas em evidências, com foco no abuso de drogas e envolvimento com violências. Este artigo objetiva apresentar o conhecimento produzido sobre barreiras e facilitadores para a implementação do CTC em diferentes países. Trata-se de uma revisão integrativa, com busca realizada nas bases de dados: Pubmed, Web of Science, Scopus, PsycINFO e Biblioteca Virtual de Saúde (BVS), utilizou os indexadores ("Communities That Care" OR “CTC”) AND (fidelity OR implementation). Dentre os 16 estudos selecionados a partir dos critérios de inclusão/exclusão, a maioria teve abordagem quantitativa ou mista, com delineamento experimental ou quasi-experimental, do tipo longitudinal, publicados entre 2005 e 2021. As principais barreiras enfrentadas foram: a mobilização da coalizão, desafios da prontidão comunitária, a coleta dos dados epidemiológicos e a utilização e implementação de intervenções preventivas baseadas em evidências. Enquanto facilitadores, identificou-se o uso de treinamentos e fornecimento de assistência técnica para aumentar a prontidão comunitária, para potencializar o trabalho da coalizão e sensibilizar a comunidade sobre a importância da implementação de intervenções baseadas em evidências.

**Palavras-chave:** prevenção de doenças, serviços preventivos de saúde, planejamento em saúde comunitária; ciência da implementação; communities that care.

**RESUMEN**

Communities That Care (CTC) es un sistema de prevención que tiene como objetivo apoyar el desarrollo saludable de niños y adolescentes a través de la organización y capacitación de coaliciones comunitarias dirigidas a la implementación de intervenciones preventivas basadas en evidencia, con un enfoque en el abuso de drogas y la participación en violencia. Este artículo tiene como objetivo presentar el conocimiento producido sobre las barreras y facilitadores para la implementación de CTC en diferentes países. Se trata de una revisión integradora, con una búsqueda realizada en las bases de datos: PubMed, Web of Science, Scopus, PsycINFO y la
Biblioteca Virtual en Salud (BVS), utilizando los términos de búsqueda ("Communities That Care" OR "CTC") AND (fidelity OR implementation). De los 16 estudios seleccionados a partir de los criterios de inclusión/exclusión, la mayoría tenía un enfoque cuantitativo o mixto, con un diseño experimental o cuasi-experimental, de tipo longitudinal, publicados entre 2005 y 2021. Las principales barreras enfrentadas fueron: la movilización de la coalición, los desafíos de preparación comunitaria, la recopilación de datos epidemiológicos y la utilización e implementación de intervenciones preventivas basadas en evidencia. Como facilitadores, se identificaron el uso de capacitaciones y la provisión de asistencia técnica para aumentar la preparación comunitaria, para potenciar el trabajo de la coalición y sensibilizar a la comunidad sobre la importancia de la implementación de intervenciones basadas en evidencia.

**Palabras clave:** prevención de enfermedades; servicios preventivos de salud; planificación en salud comunitaria; ciencia de la implementación; communities that care.

1 INTRODUCTION

The Communities That Care (CTC) system is a community-based prevention program designed to support the healthy social development of children and adolescents by mobilizing and empowering community coalitions. It encourages communities to assess their needs, plan strategies, and implement evidence-based prevention interventions (Hawkins et al., 2014). This system has been demonstrated to have efficacy and effectiveness in preventing drug misuse and violent behaviors, as evidenced by randomized controlled trials and quasi-experimental studies (Chilenski et al., 2019).

CTC employs a public health approach and community mobilization strategy, utilizing the social development model to facilitate behavioral change. The implementation process is comprised of five stages. 1) Assessing the community's readiness to implement the system; 2) Organizing leadership and the community coalition, and providing training on the system; 3) Profiling the community by assessing risk and protective factors related to drug use and violence, along with health outcomes and community values; 4) Creating a community prevention plan based on evidence-based interventions; 5) Implementing the prevention plan, and continuously monitoring and evaluating the implementation and outcomes of the prevention programs (Hawkins et al., 2014).

CTC has demonstrated its successful implementation across numerous countries, including the United States, Canada, Australia, Sweden, the Netherlands, Germany, Croatia, Spain, Guatemala, Honduras, El Salvador, Colombia, Chile, and Mexico. It is currently being
adapted for use in Brazil (Thurow et al., 2021). The implementation of evidence-based community interventions to present a significant challenge, particularly in developing countries that have yet to fully establish prevention science. To bridge the gap between scientific discoveries and practical application, implementation science explores the barriers and facilitators to the effective implementation of programs, systems, or policies (Barry et al., 2019).

The objective of this article is to present the current state of knowledge on the primary barriers and facilitators for implementing or adapting CTC in different communities and countries. This will contribute to the design of the cultural adaptation process for Brazil, which began in 2021 through a collaborative project involving the Federal University of Santa Catarina, the Federal University of São Paulo, and the University of Miami.

2 METHODOLOGY

This study is an integrative review, a method used to critically and synthetically examine representative literature on a given topic (Torraco, 2005). Its guiding question was: ‘What are the barriers and facilitators to implementing Communities That Care (CTC) in different communities and countries?’

We included empirical and theoretical studies published between 2002 and 2021, with no language restrictions. The following electronic databases were searched: PubMed, Web of Science, Scopus, PsycINFO, and the Virtual Health Library (VHL). The search strategy combined the following keywords: (“Communities That Care” OR CTC) AND (fidelity OR implementation). References were imported into Endnote for duplicate checking and exclusion. Rayyan (Ouzzani et al., 2016) was used to apply the eligibility criteria and select studies. Exclusion criteria were studies that included prevention systems and community interventions unrelated to CTC and those that did not evaluate the implementation process or cultural adaptation of CTC.

As depicted in Figure 1, the initial search conducted in February 2022 identified 785 studies, of which 262 were duplicates, leaving 523 articles for title and abstract screening. Out of these, 29 studies were selected for full-text review, with an additional 2 studies suggested by experts, totaling 31 studies. Following the full-text review and application of exclusion criteria, 16 studies were chosen for data extraction and analysis.
3 RESULTS AND DISCUSSIONS

Most studies used quantitative or mixed methods with experimental or quasi-experimental longitudinal designs and were published between 2005 and 2021, as summarized in Table 1. These included eight implementation studies and eight cultural adaptation studies, conducted primarily in the United States (n = 9) and other countries undergoing cultural adaptation processes, such as the Netherlands (n = 2), Colombia (n = 2), Chile (n = 1), Mexico (n = 1), and the United Kingdom (n = 1).
<table>
<thead>
<tr>
<th>Article</th>
<th>Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation of the Communities That Care prevention system by coalitions in the Community Youth Development Study</td>
<td>Quantitative, experimental, and longitudinal</td>
</tr>
<tr>
<td>Implementing the Communities That Care Prevention System: challenges, solutions, and opportunities in an urban setting</td>
<td>Quantitative, quasi-experimental, and longitudinal</td>
</tr>
<tr>
<td>Development and implementation of businesses that care in Zacatecas, Mexico</td>
<td>Quantitative, quasi-experimental, and longitudinal</td>
</tr>
<tr>
<td>Evaluation of three Communities That Care projects in the UK</td>
<td>Quantitative, experimental, and longitudinal</td>
</tr>
<tr>
<td>Bridging science to practice: Achieving prevention program implementation fidelity in the Community Youth Development Study</td>
<td>Quantitative, observational, and longitudinal</td>
</tr>
<tr>
<td>Sustainability of the Communities That Care prevention system by coalitions participating in the Community Youth Development Study</td>
<td>Mixed-method, observational, and longitudinal</td>
</tr>
<tr>
<td>Sustainability of community coalitions: An evaluation of communities that care</td>
<td>Mixed-method, observational, and longitudinal</td>
</tr>
<tr>
<td>Preventing harmful substance use: The evidence base for policy and practice</td>
<td>Mixed-method, quasi-experimental, and longitudinal</td>
</tr>
<tr>
<td>Testing communities that care: The rationale, design and behavioral baseline equivalence of the community youth development study</td>
<td>Quantitative, experimental, and longitudinal</td>
</tr>
<tr>
<td>Communities That Care, core elements and context: Research of implementation in two countries</td>
<td>Quantitative, experimental, and longitudinal</td>
</tr>
<tr>
<td>Implementation and adaptation in Colombia of the Communities That Care</td>
<td>Quantitative, quasi-experimental, and longitudinal</td>
</tr>
<tr>
<td>Adaptation and implementation of a science-based prevention system in Colombia: challenges and achievements</td>
<td>Quantitative, quasi-experimental, and longitudinal</td>
</tr>
<tr>
<td>Installing the Communities That Care prevention system: Implementation progress and fidelity in a randomized controlled trial</td>
<td>Quantitative, observational, and longitudinal</td>
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</tbody>
</table>
Implementation science is crucial for understanding the factors influencing the uptake of innovations and developing strategies to facilitate implementation, thereby ensuring more effectiveness outcomes (Damschroder et al., 2009). Barriers can impede the quality of planned interventions, necessitating strategies to address these issues. For instance, increasing the adoption of evidence-based interventions can improve the quality of prevention efforts, optimize resources, and ensure better value for money (Powell et al., 2017; Salazar et al., 2016; Schneider et al., 2020).

To better understand the challenges of implementing CTC, the main barriers and facilitators identified in international studies are presented according to the stages of this system. In the first stage, preparing the community for the intervention, the main barriers included mobilizing community members and securing support from different community services and institutions for implementation (Brady et al., 2018; Brown et al., 2021; Mejía-Trujillo et al., 2015; Steketee et al., 2013; Rioseco, 2017). There were also difficulties in establishing common community definitions, such as territorial boundaries (Jonkman et al., 2009; Rioseco, 2017) and defining the roles of coalition members (Jonkman et al., 2009; Rioseco, 2017; Steketee et al., 2013).

Strategies to overcome these barriers included forming a local implementation team with in-depth knowledge of the CTC system, strengthening training processes (Pérez-Gómez et al., 2016; Rioseco, 2017); investing in Key Leader Orientation training, which empowers community members to understand prevention concepts and strategies and CTC (Quinby et al., 2008); and conducting a thorough community readiness assessment to develop a plan to address identified issues (Crow et al., 2006; Pérez-Gómez et al., 2016; Quinby et al., 2008; Rioseco, 2017).

One of the strengths of CTC is its investment in training community leaders to take a leadership role in prevention initiatives. Therefore, it is essential to educate them about...
prevention and evidence-based practices that rely on the quality of implementation of preventive programs, which is ensured through monitoring and implementation fidelity (Fagan et al., 2019). CTC developers argue that "implementation quality is improved when stakeholders take the time to understand the requirements of an evidence-based practice, consider its implementation feasible, and ensure that its content and methods are compatible with the norms, values, and needs of the local community" (Fagan et al., 2019). These are critical aspects that ensure the effectiveness of CTC and require attention during implementation or cultural adaptation.

Another feature that distinguishes CTC from other systems is the assessment of community readiness for change. This includes establishing community commitment to building prevention capacity, emphasizing the importance of evidence, and defining strategies to promote change (Castañeda et al., 2012). Leaders must be willing to address psychosocial and health issues in their community, such as substance abuse and violence, to prevent these negative outcomes (Fagan et al., 2019). To address the challenges of community mobilization, CTC suggests that the first step is to assess community readiness, followed by an action plan to increase that readiness. The results of this assessment can inform decisions in subsequent stages (Oliveira Corrêa et al., 2022).

In stage 2, organizing the community and forming the community coalition, barriers identified included difficulties in engaging members from different community sectors and increasing community readiness (Brown et al., 2021; Crow et al., 2006; Fagan et al., 2008; Jonkman et al., 2009; Pérez-Gómez et al., 2016; Quinby et al., 2008; Rioseco, 2017). Challenges related to the community coalition persisted throughout the implementation process (Jonkman et al., 2009; Mejía-Trujillo et al., 2015; Pérez-Gómez et al., 2016; Stockwell et al., 2005).

To address this issue, implementers invested in training and technical assistance meetings to increase the frequency and quality of community contact (Brady et al., 2018; Mejía-Trujillo et al., 2015; Rioseco, 2017; Stockwell et al., 2005). Strategies have also been employed to keep meetings focused on solving specific community problems and advancing coalition goals (Brown et al., 2021) by using workgroups within the coalition. Discussing and using epidemiological data from the Community Risk and Protective Profile (Communities That Care Youth Survey) was also critical. This helped in formulating medium- and long-term goals and outcomes tailored to the specific needs of the target area within the coalition's prevention planning (Crow et al., 2006; Pérez-Gómez et al., 2016; Quinby et al., 2008; Rioseco, 2017).
Assessing the specific needs of the community and using epidemiological data to inform prevention planning is a central element of CTC and a differentiator from other systems. To conduct this assessment, community members collect and analyze data on local youth risk and protection, and then collectively decide on the most pressing needs. This shared decision-making process is designed to increase consensus on local issues, build group cohesion, and provide community leaders with a shared mission and commitment to solving local problems, fostering cooperation and strengthening community ties. Another benefit of the needs assessment is that it allows for the strategic selection of prevention programs that target identified psychosocial issues (Fagan et al., 2019). This leads us to Stage 3.

In this stage, community coalitions are expected to use epidemiological data to create a community profile and establish intervention priorities. Implementation barriers described in this stage included the strategic timing of administering the Communities That Care Youth Survey (CTCYS) and developing the community profile (Mejía-Trujillo et al., 2015). There were also reports of difficulties in accessing complementary epidemiological data on risk and protective factors (Brady et al., 2018; Jonkman et al., 2009; Quinby et al., 2008), as the CTCYS data may not be sufficient to outline this community profile.

To overcome these barriers, investments were made in the active participation of the coalition coordinator in conducting research on community resources and existing prevention programs (Brady et al., 2018; Crow et al., 2006), increasing contact with local government (Pérez-Gómez et al., 2016; Rioseco, 2017), and working with pre-existing coalitions (Quinby et al., 2008). Administering the CTCYS remains the primary resource for addressing this challenge, providing data for the community coalition to establish the epidemiological profile of the community. Administering it earlier, possibly in Stage 2, could support coalition organization and member engagement (Pérez-Gómez et al., 2016).

From here, the coalition can move to stage 4, where a strategic action plan is defined and evidence-based prevention programs are selected to address risk factors. At this stage, the primary barrier described was the lack of tested and effective programs outside of the United States (Brown et al., 2021; Jonkman et al., 2009; Pérez-Gómez et al., 2016; Steketee et al., 2013; Rioseco, 2017). Additionally, some coalitions reported resistance to using evidence-based interventions (Quinby et al., 2008), as well as the difficulty of selecting one or more evidence-
based policies or programs that effectively target the factors identified in community profiles and needs assessments, as discussed by coalitions (Brady et al., 2018).

For CTC, one of the mechanisms for achieving positive youth outcomes is community adoption of evidence-based prevention (Arthur et al., 2010; Brown et al., 2014). One strategy used to raise awareness and sensitize the coalition was to detail the interventions available in the country (Gomez et al., 2005; Quinby et al., 2008; Rioseco, 2017). Mapping and dissemination of interventions such as the Blueprints for Healthy Youth Development (see https://www.blueprintsprograms.org/) in the United States provided the coalition with access to effectiveness interventions to formulate the action plan (Quinby et al., 2008). Having a wide range of evidence-based preventive interventions, along with websites that provide access to their characteristics and rigorous requirements for evidence production, as seen with the Blueprints, facilitates the implementation of systems such as CTC in the United States, some European Union countries, and other nations with substantial investments in science and technology.

Conversely, developing countries, such as those in Latin America, with less investment in research, find it more difficult to consolidate a consistent set of practices with proven evidence. In these cases, it is necessary to be flexible in the requirements for evidence production. In the studies reviewed, countries such as Colombia and Chile offered a limited menu of program options and strategies, including quasi-experimental evaluations, as effectiveness evaluations are still in their infancy (Brown et al., 2021; Pérez-Gómez et al., 2016; Rioseco, 2017).

Finally, in stage 5, evidence-based interventions are implemented and their outcomes are evaluated. In some communities, both in Latin America, this stage was still ongoing and no articles addressed it (Pérez-Gómez et al., 2016; Rioseco, 2017). In other cases, the main barriers encountered were the resistance of community coalitions to using evidence-based approaches (Steketee et al., 2013), difficulties in planning action plans based on evaluation results (Jonkman et al., 2009), and low adoption of social development strategies (Fagan et al., 2008).

Reaching this final stage is the primary goal of CTC implementation, as it is here that interventions are developed to change the target outcomes defined by the community needs assessment. However, this stage requires coalition commitment, planning, and knowledge to ensure fidelity of implementation and the ability to evaluate outcomes for effectiveness. As noted above, countries with few evidence-based practices and a limited research tradition may find it more challenging to satisfactorily complete this final stage.
With regard to coalitions, recruiting and training new community leaders remains a challenge (Fagan et al., 2008; Gloppen et al., 2012; Jonkman et al., 2009), as does creating and maintaining community coalitions to ensure the continuity of the system (Pérez-Gómez et al., 2016). To mitigate the effects of coalition member turnover, regular and additional training was suggested when needed (Jonkman et al., 2009).

Regarding implementation of prevention interventions, schools resisted incorporating new prevention curricula due to available classroom time and curriculum demands (Quinby et al., 2008), low participation in after-school programs such as parent and family training programs (Fagan et al., 2008; Jonkman et al., 2009), and difficulty accessing some target populations (Brown et al., 2021). Strategies to increase school collaboration and adoption of interventions into school curricula initially involved selecting programs or strategies that did not use classroom time or integrating them into existing activities (Quinby et al., 2008). Addressing low participation in interventions required revising the intervention plan, finding new ways to reach the target audience, and using different marketing strategies (Fagan et al., 2008).

4 CONCLUSION

Despite the challenges of implementing CTC, its spread tends to improve public health in the medium and long term, resulting in societal benefits (Kuklinski et al., 2021). Longitudinal studies have shown that communities that implement CTC are better equipped to develop and implement evidence-based prevention plans tailored to local priorities, leading to better outcomes in positive youth development into adulthood compared to communities that did not implement the system (Chilenski et al., 2019; Feinberg et al., 2009; Kuklinski et al., 2021; Toumbourou et al., 2019). CTC provides a structured dialogue for community leaders to discuss needs, values, and challenges, improving community coordination and facilitating community prevention efforts.

Many barriers to implementing CTC were common across countries and communities. One common challenge was effectively engaging community members in collective action and projects, a common issue for many community organizations and practices. Because engagement is critical to coalition building, a core component of CTC, the system includes facilitators to improve participant adherence through several mechanisms focused on community coordination.
These include: a) assessing readiness for change and using this data to develop targeted interventions; b) providing training programs to equip leaders in community organizing, prevention science, and understanding evidence-based practices; c) identifying specific territorial needs through risk and protective factor analysis related to drug use and violence, creating a community profile that takes into account local values and enables focused action planning; d) organizing the coalition into working groups with specific tasks within the CTC development to optimize interventions.

Another major challenge relates to the socioeconomic conditions that affect the ability of countries and communities to produce information and evaluations that allow for a set of evidence-based practices that offer different preventive intervention options that are in line with local values and needs. This raises a fundamental question: "How can we effectively promote cultural adaptation that takes into account the cultural diversity of each site?" This challenge requires balancing fidelity to the original model and its core elements with the sociocultural needs and values of a country or community. Without this necessary balance, interventions may either fail to resonate with the target population or become unrecognizable, potentially leading to ineffective or harmful outcomes.

In light of these points, the CTC system could be a valuable option for Brazil's community-based prevention policies, potentially enhancing Brazil's long history of community interventions and advancing prevention science in the country. However, it is important to ensure that cultural adaptation processes take into account the barriers and facilitators identified in other countries, as well as the specific realities and community practices in Brazil, in order to achieve a balance between fidelity and cultural specificity.

It is important to highlight some limitations of this article. The acronym "CTC" caused significant noise in the initial search, resulting in many irrelevant articles. In addition, some relevant articles may have been missed, resulting in data gaps. An integrative review was chosen because the goal of identifying barriers and facilitators in the CTC implementation process had a qualitative focus, aiming to support reflection and decisions for its adaptation in Brazil. However, future studies analyzing the efficacy and effectiveness data produced by this prevention system in a systematic review format may be important to determine whether CTC is a viable public policy option for community prevention in Brazil.
REFERENCES


