Use of the Audit and Feedback: lessons from an implementation study

Objectives: Based on the discourse of Primary Care professionals, to assess how the use of the Audit and Feedback strategy contributed to the generate tension for change in the implementation of matrix support in a medium-sized city in São Paulo.

Methods: Qualitative study conducted by analyzing the transcript of Shared Appreciation Groups that used the Audit and Feedback strategy with five Primary Care teams in a medium-sized city in São Paulo between December 2019 and March 2020. Content analysis was used in data analysis. The implementation outcomes: acceptability, adequacy and adoption, understood as the main outcomes related to the tension for change, were previously defined as categories.

Results: The speeches of professionals who participated in the groups in which the Audit and Feedback strategy was used made it possible to identify the generation of tension for change produced from data presented to them. Indications of acceptability, adequacy and adoption in relation to the matrix support were evidenced, thereby suggesting the contribution of the strategy employed to the success of the implementation.

Conclusion: The Audit and Feedback strategy proved to be effective in generating tension for change, thereby favoring the recognition of the need for intervention and consequently facilitating its implementation.

Keywords
Implementation science; Mental health; Health police; Family health strategy; Primary health care

Resumo
Objetivo: Avaliar, a partir do discurso de profissionais da Atenção Básica, como o uso da estratégia Audit and Feedback contribuiu para geração de tensão por mudança na implementação de apoio matricial em um município paulista de médio porte.

Métodos: Estudo qualitativo, realizado por meio da análise da transcrição de Grupos de Apreciação Partilhada que empregaram a estratégia Audit and Feedback junto a cinco equipes de Atenção Básica em um município paulista de médio porte entre dezembro de 2019 e março de 2020. Para análise dos dados foi empregada análise de conteúdo que utilizou como categorias previamente definidas os desfechos de implementação: aceitabilidade, adequação e adoção, entendidos como principais desfechos relacionados à tensão por mudanças.

Resultados: As falas dos profissionais que participaram dos grupos em que foi empregada a estratégia Audit and Feedback permitiram identificar a geração de tensão por mudança produzida a partir dos dados que lhe foram apresentados. Indicativos de aceitabilidade, adequação e adoção em relação ao apoio matricial foram evidenciados, sugerindo assim a contribuição da estratégia empregada para o sucesso da implementação.

Conclusão: A estratégia Audit and Feedback se mostrou efetiva na geração de tensão por mudança, favorecendo assim o reconhecimento da necessidade da intervenção e consequentemente facilitando a sua implementação.
Introduction

The prediction that the effective implementation of interventions, programs and health policies may take approximately seventeen years until its incorporation into the routine of services raises a global debate on the need for planned and coordinated efforts to fill the theoretical-practice gap generated.\(^{(1,2)}\) The Science of Implementation stands out among the approaches aimed at dealing with these issues. Through the study of the different factors at different levels that affect the implementation of an intervention, it seeks to incorporate elements that help to overcome barriers and enhance the facilitators of implementation processes by promoting their effectiveness.\(^{(3,4)}\)

Implementation strategies are methods or techniques used to improve the adoption and sustainability of health interventions, programs and policies. They have been described as the active ingredient in the implementation process, corresponding to the “how to” of change in health practices.\(^{(5)}\) In a review with subsequent evaluation by an expert panel, the authors Powel et al. (2015)\(^{(6)}\) identified 73 strategies distributed in nine different domains. Some examples of strategies are the use of evaluation in an interactive way through audit followed by feedback (audit and feedback), availability of clinical-institutional assistance and supervision, training and qualification of workers, use of financial strategies, etc.\(^{(6)}\)

In this sense, when conducting implementation research for the incorporation of matrix support as an integration mechanism between Primary Care and specialized Mental Health services in a medium-sized municipality, we sought to connect each of the barriers found in the preliminary assessment of the context to an implementation strategy with potential to overcome it.

Among the barriers found was the invisibility of mental health demands by professionals linked to Primary Care services of the municipality. This invisibility is already well documented in the literature and attributed to factors such as insufficient training of professionals, theoretical-practical and subjective difficulties and the perpetuation of a biological view of the health-disease process to the detriment of the biopsychosocial view.\(^{(7,8)}\)

Although matrix support seeks to provide answers to these problems, the effective implementation of an intervention, program or policy depends on the degree to which interested parts perceive the situation as intolerable or in need of change, an aspect defined as tension for change.\(^{(9)}\) Faced with the invisibility of mental health demands by Primary Care professionals, we used the audit and feedback strategy to produce tension for change, a fundamental element for following the implementation process.\(^{(9)}\)

The audit and feedback strategy is characterized by the systematic and structured evaluation and feedback of the performance of professionals and services in relation to a practice seen as in need for changes.\(^{(10,11)}\) The underlying assumption of its application is that when faced with information that demonstrates a practice or results that are inconsistent with a positive assessment, professionals are encouraged to reflect on alternatives for changing...
the situation, thus leading to greater acquiescence in relation to introducing interventions.\(^{(11)}\)

Note that this is a widely used strategy in implementation research, with emphasis in countries such as England and the Netherlands. The literature has at least 140 projects in which this strategy is used, and the findings support its use with health professionals.\(^{(11)}\) However, Brazilian studies using the implementation and evaluating this strategy as way of producing tension for change in the implementation of health interventions, programs or policies have not been found.

Thus, the objective of this study was to assess, from the discourse of Primary Care professionals, how the use of the audit and feedback strategy contributed to generate tension for change in the implementation of matrix support in a medium-sized city in the state of São Paulo.

### Methods

Qualitative study conducted between December 2019 and March 2020 with professionals linked to five Primary Care services in a medium-sized city in São Paulo. The municipality population is of approximately 120,000 inhabitants and its health network includes six traditional Basic Health Centers and 13 Family Health Strategy Units (FHS) to which 19 teams are linked. Mental health services are part of the Psychosocial Care Center - CAPS network (one of type II; one of the AD modality, for the care of cases of abusive use of psychoactive substances; an outpatient clinic that offers consultations with psychiatrists and psychologists; and a Children’s Care Center to meet the mental health demands of the child and youth population).

All professionals linked to Primary Care services and exposed to the audit and feedback strategy were considered eligible for the study. However, the inclusion was conditioned to the authorization of the audio-recording of Shared Appreciation Groups (SAGs) through which the strategy was applied. Although the strategy was used in all units in the municipality, only professionals from five units were included. In spite of that fact, no damages to the study were noticed, since the theoretical saturation of data was reached in the analysis of data from the fourth Shared Appreciation Group.

The audit and feedback strategy has actors, actions, action goals (in relation to its level and determinants), temporality, dose and outcomes.\(^{(5)}\) The actors of the strategy (those who perform the strategy) were two researchers linked to a public educational institution that comprises the system of synthesis and translation of evidence within the implementation system. Their action consisted of synthesizing data from the pre-implementation stage and presenting the information through projections that allowed the joint appreciation of perceptions through Shared Appreciation Groups.

The aim of the strategy was to produce results with the individuals involved in the implementation, more precisely, workers of Primary Care services who understand the intervention delivery system, and other workers of Mental Health services. The determinant (barrier) that the strategy sought to address was the invisibility of mental health demands.

Regarding the temporality of the strategy, it was used in the pre-implementation stage of the project, seeking to ensure the necessary conditions for the incorporation of the intervention in the stage of implementation. Its use took place in a team meeting (dose) and was mainly aimed at promoting acceptability, adequacy and adoption outcomes that, within the scope of implementation research, are intrinsically linked to the tension for change.\(^{(12)}\)

Data presented to workers through the audit and feedback strategy were intended to generate tension for change based on the recognition of the magnitude of the demand from users with mental health problems who were not receiving appropriate care. Data concerned information about the profile of users, the pattern of use of services and information about health conditions and care received. A complete list of data presented can be seen in chart 1.

Data were collected as part of a situational diagnosis of the service network by means of the collection from medical records. The collection procedures were performed between May and July, 2019 in the services studied by 16 previously trained coll-
collectors. These individuals were undergraduate students or professionals graduated from psychology or medicine courses supervised by two graduated professionals, one in nursing and the other in social services.

Based on data available in the medical records, the collectors filled out a form when inclusion criteria were met: registration of at least one attendance for a mental health complaint referring to item F of the International Classification of Diseases (ICD), or registration of psychosomatic complaints associated with the use of psychotropic drugs belonging to group N of the WHO Anatomical Therapeutic Chemical Code (ATC) System. At the end of the study, 3,849 users who met these inclusion criteria were identified.

The audit and feedback strategy was used through Shared Appreciation Groups. Although these are similar to focus groups, their main difference is the search for horizontal, bidirectional relationships, and the transfer of control from the group to oneself. The choice for this methodology is based on its radically participatory character which, based on the presentation of a question for debate, allows subjects to dialogue freely so that interventions can come from any individual and at any time.

The Shared Appreciation Groups were previously agreed with each team at scheduled times in order to minimize interference in the work process. Each meeting lasted approximately two hours, and the script followed included: (1) opening, (2) clarification of the dynamics of the dialogue, (3) establishment of the setting, (4) dialogue, (5) synthesis of the previous moments and (6) closure. The material for analysis was the audio transcription of the Shared Appreciation Groups. The raw data resulted in five audio recordings with a minimum duration of 40 minutes and a maximum of two hours, resulting in 108 pages of literal transcription. We chose to categorize the results according to contributions of the audit and feedback strategy for the emergence of implementation outcomes that are intrinsically associated with the tension for change, namely: acceptability, adoption and adequacy.

For this categorization, authors were guided by the content analysis model of thematic category. The analysis was conducted in stages; the first was related to operations of breaking the texts into units and categories, and the second to the analytical regrouping through organization of messages from predefined categories. In the second moment, each message was discussed in order to establish a consensus among researchers regarding its pertinence in the proposed category.

The study was submitted to the Research Ethics Committee of the Faculdade de Ciências Médicas at the Universidade Estadual de Campinas and approved under opinion No. 3.065.312. All Brazilian norms and guidelines for the regulation of research involving human beings were followed, according to Resolution 466/2012 of the National Health Council and provisions of the Declaration of Helsinki (Certificate of Presentation of Ethical Appreciation: 00827918.8.0000.5404). The professionals signed the Informed Consent form and the identity of participants was preserved through alphanumeric coding. Given the size of the municipality, another care taken was intentionally not de-
scribing the characteristics of the sample by hiding information that could, in some way, help to identify both the identity of subjects or the health unit where they work.

**Results**

The results presented include the Shared Appreciation Groups conducted in the pre-implementation phase with five Primary Care services that operate in the Family Health Strategy model. The professionals included in the sample were nurses, nursing technicians, community health agents, doctors and dentists. The results that emerged from the analysis of transcripts of Shared Appreciation Groups are presented below, based on the analysis categories defined a priori: acceptability, adequacy and adoption. These categories correspond to implementation outcomes intrinsically linked to the manifestation of tension for change. From selected excerpts, we seek to illustrate how the manifestation of these outcomes signals the perception of the current situation as intolerable or in need of change.

In our experience, although the first approach to services suggested a low mobilization of teams around mental health issues, in the use of the audit and feedback strategy, a certain surprise with data presented was noticed, and the need for training and appropriation of data collected in the territory was recognized. One of the proposed actions was the training of workers to act in this perspective. The statements presented below are in favor of the acceptability of the proposed intervention.

I'm shocked! You evaluated almost 50% of the medical records in the city, obviously it is not possible to do it in Campinas, but if the health centers started to have the “feeling”, common sense, this awakening thing, perhaps we would not have so many recurrences [of users unassisted by the network] (SAG Blue).

It would even be interesting if we had some specialization, not specialization, but a course, a training (SAG Yellow).

I think that's cool [training], we really need it, we need to improve a lot, much more, but I think the point is this: getting to the right point and being able to finish [care for users with mental disorders]. (SAG Yellow).

During Shared Appreciation Groups, when stimulated in discussions triggered by the data presented, professionals reported several difficulties in relation to approaching and monitoring users during and after referral to specialized care. As shown below, speeches converged to aspects such as: (1) perpetuation of the biological perspective in the face of the health-disease process, both by professionals and the community itself, with predominance of a drug-dependent view, (2) deficiency/lack of the counter-referral system, (3) lack of continuity of care and (4) lack of clear outlines for the sharing of cases, referrals and information exchange.

It is difficult for the population to understand that we need to have good mental health in order to carry on with other things in our lives. If here [mental health] things aren't cool, the rest won't function, so there's still that stigma that it’s “being sensitive”, especially in adolescence (SAG Yellow).

Ah, I think it's a lot like this: a lot of medication is used without a diagnosis, they come with an anxiety crisis and they start with sertraline, diazepam, then the person takes it, gets well and doesn't come back [here the worker reports cases of mental health users arriving only with a drug prescription, without a diagnosis or any other type of information/counter-referral] (SAG Purple).

On the other hand, I believe many things they have there, maybe can be returned to primary care, because there is a lot we can and should be doing here, but then, if we don't have enough flow or communication for counter-referral, it is difficult for them and for us too, I guess (SAG Blue).

So, well, we were very afraid of this, of how the patient would react, and I think the city needed this [the research itself], to know how this work is
going to be handled and how to continue monitoring this patient, the way it has to be, you know? (SAG Yellow).

I think like this: these meetings that have taken place once a month serve precisely to try to improve this coordination, and really know the referrals we are going to make, and the counter-referrals [specialized service] they are going to make, and understand it the best way, so we are able to give a positive resolution for the patient (SAG Blue).

Regarding the adoption outcome, the following statements were both about the intention to contemplate and understand the vulnerabilities of the population in mental suffering in the territory and about concrete actions to change reality.

Our average [average of the population served in the territory that presented mental health complaints] is higher than the general, 74% of women in the SAG Blue, so what is happening that women are getting sick? Gotta look at it, what’s going on with them? Is it the job, is it the family issue?... Are they socially isolated? Is there a lack of social interaction? Job? Are they unemployed or working? The family situation, you know? Start working with this information because, as the doctor said, soon it will overflow... So, look at this and think of a strategy, as a public health policy (SAG Blue).

Yeah, I think now [after the feedback and explanation about the intervention] I’m even going to ask X, who is our reference, that she sends a list of patients here at the unit who are in follow-up there [CAPS] (SAG Blue).

Discussion

The first implementation outcome identified in the study, acceptability, refers to the perception, among the actors involved in the implementation, that a given practice is acceptable, palatable or satisfactory for the context. (12) Low acceptability can be understood as the first obstacle for incorporation of a new intervention, program or health policy in an institution. The speeches of participants, in addition to dialoguing with challenges recurrently mentioned in the literature as hindering the sharing of care between the different levels of care, (16) support the feeling of adequacy of the proposed intervention, since adequacy is understood as the perception that there is relevance or compatibility of the intervention in a particular practice setting or specific problem solving. (12)

Note that the problems indicated by professionals are targets of specific action of the logic of matrix support in mental health, which is configured as a model of pedagogical-therapeutic intervention that aims to produce and stimulate relationship patterns that permeate all workers and users, favoring the exchange of information and co-responsibility of the user. (17)

From professionals’ speeches and the discussions triggered by the audit and feedback strategy, it was possible to identify an intention to change their attitude towards the presented problem. This shows the adoption outcome, defined as the intention, initial decision or action to employ a particular innovation or practice in a health context. (12)

The professionals’ speeches that emerged during discussions, when evoking the outcomes of implementation of acceptability, adequacy and adoption, reveal a tension for change generated from the assimilation and discussion of data presented. Note that this was only possible in our assessment because of the participatory dimension established in Shared Appreciation Groups.

The audit and feedback strategy can be performed in several ways. There are records in the literature on the use of this intervention both in oral and written format, as well as in a passive and participatory way. (11) In our experience, we chose Shared Appreciation Groups because we understand they configure a two-way street between researchers and professionals, moving away from an evaluative character, potentially conducive to negative reactions, and moving towards a collective construction of awareness of professional practices and their consequences for mental health users. In this sense, we emphasize that the method used enabled the dialogue between researchers’ academic knowledge of and professionals’ experience, demystifying
the idea of unilateral knowledge, and recognizing professionals at the end as partners in the discussion, and individuals aware of their ability to improve and develop.\textsuperscript{(18,19)}

Our study corroborates the perspective that as opposed to what occurs in the use of the audit and feedback strategy by passive means, the use of this implementation strategy in an active and participatory way allows dialogue between agents and receivers, thus favoring an opportunity of reflection and collaborative discussion on data presented.\textsuperscript{(20)} However, as already reported in the literature, for a more effective use of this strategy, it is important that some recommendations are observed, among which, the use of reassuring messages and playful strategies that combine visual and verbal resources for exposure of data, thus contributing to maintain attention and avoid the mental overload of participants.\textsuperscript{(21)}

The literature brings several recommendations for the development of audit and feedback and effectiveness of objectives. The most frequent include factors such as reliability of exposed data and agents of the strategy, goals and viable resolutions, the use of reassuring messages and playful strategies - combining visual and verbal resources for exposure of data - in addition to strategies to maintain attention and avoid mental overload of receptors.\textsuperscript{(21)}

Finally, we understand that the use of the audit and feedback strategy was of great importance in establishing a setting that allows the construction of a more reliable and sustainable implementation process, since, as demonstrated, professionals were more receptive to the intervention, indicating in their speeches that a certain degree of acceptability, adequacy and adoption was reached.

A limitation was that since this is a qualitative study, based on the subjective perception of these outcomes, aspects such as comparing their degree of occurrence are not feasible. However, this is the first Brazilian study evaluating these outcomes through the audit and feedback strategy, thus demonstrating its relevance. In view of the lack of standardized and validated instruments for the country that allow another way of evaluating these outcomes as representatives of the tension for change, this study represents an important advance in the field of Implementation Science in Brazil.

**Conclusion**

The analysis of professionals’ statements that emerged during discussions provided by the audit and feedback strategy when evoking the implementation outcomes of acceptability, adequacy and adoption, revealed a tension for change generated from the assimilation and discussion of data presented. Our study suggests that the audit and feedback strategy can be an important tool for enabling implementation processes that will be conducted in the future. Among the lessons learned from the experience, the strength of the use of participatory methodologies for the adoption of the strategy stands out. The horizontalization of this process seems to have contributed to break resistances that are often present in the relationship between academia and services.

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**References**