RESEARCH ARTICLE

Assess, triangulate, converge, and recommend (ATCR): A process for developing recommendations for practice in the social sector using scientific, contextual and experiential data

[Évaluer, trianguler, converger et recommander (ETCR) : un processus d'élaboration de recommandations pour la pratique dans le secteur social à l'aide de données scientifiques, contextuelles et expérientielles]

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Abstract: Recommendations within health technology assessment and practice guidelines are often based on a review of the available evidence and on the use of a hierarchical model of evidence. However, to develop social services recommendations, the data must be reviewed from multiple perspectives to ensure that they are useful and tailored to the intervention context and to the particular characteristics of users. This article presents a process for developing social services recommendations. The method used was based on grounded theory, and involved four main steps: (a) performing a qualitative analysis of discussions held between experts; (b) designing a cognitive map of the data to highlight the experts' conceptualizations; (c) consulting databases and grey literature; and (d) comparing the qualitative data with the scientific literature. A method for developing recommendations that involves considering various types of scientific studies as well as contextual and experiential data is proposed. According to this method, triangulation is then used to group these various types of sources. A scoring system that considers the various review questions related to each recommendation is proposed to guide the development of recommendations and grade their strength. The proposed method has been tested to formulate recommendations in social sciences assessment. In conclusion, the proposed method aims to support the development of recommendations for social services, in order to take into account the epistemological foundation of social sciences.

Keywords: practice guidelines, health technology assessment, method, social sciences, evidence-based practice, recommendations.

Résumé : L'élaboration des recommandations en évaluation des technologies comme dans la production de guides de pratique repose souvent sur un modèle de hiérarchisation de la preuve. Toutefois, pour élaborer des recommandations pour les services sociaux, les données doivent être examinées sous plusieurs angles afin de s'assurer qu'elles soient utiles et adaptées au contexte de l'intervention et aux caractéristiques particulières des usagers. Cet article présente un processus d'élaboration de recommandations pour les services sociaux. Basée sur la théorie ancrée, utilisée pour conceptualiser de nouveaux modèles ou théories, la méthode proposée implique quatre étapes : (a) une analyse qualitative des discussions entre experts en collectant, analysant et synthétisant les données, (b) la conception d'une carte cognitive à partir des données qualitatives pour schématiser la représentation des experts, (c) la consultation de bases de données et de la littérature grise et (d) la comparaison des données qualitatives avec la littérature scientifique. Cet article propose ainsi une méthode pour développer des recommandations, en considérant différents types d'études scientifiques ainsi que des données contextuelles et expérientielles. La triangulation est ensuite utilisée pour regrouper ces différents types de données (scientifiques, contextuelles et expérientielles). Un système de pointage pour chaque question liée à une recommandation est proposé pour guider l'élaboration des recommandations et déterminer leur force. La méthode proposée a été testée au moyen d'études de cas. Cette méthode vise à soutenir le développement de recommandations pour les services sociaux, en s'appuyant sur des fondements épistémologiques des sciences sociales.

Mots clés : guides de pratique, évaluation des technologies et des modes en intervention en services sociaux, méthodes, sciences sociales, pratique fondée sur des données probantes, recommandations.

Introduction

While health sciences have used health technology assessment (HTAs) and practice guidelines (PGs) for quite some time already, their use in the social sciences is much more recent. As a result, there is a dearth of methods that can be used in the social sciences [1]. Furthermore, existing methods often do not fully capture the specificity of practice in the social sciences.

In the health sciences, HTAs and PGs have a strong methodological tradition that involves using systematic reviews. To identify studies that can be included in these systematic reviews, most methods [e.g., 2, 3] generally involve establishing a hierarchy of evidence, with preference given to studies that examine causal links between an intervention and outcomes (i.e. randomized clinical trials). Relying on such a hierarchy of evidence may produce a conceptual bias in that it equates "quality of evidence" with "internal validity". Quality of evidence usually refers to the degree to which the research design and the conducting of the study on which the evidence is based have made it possible to obtain valid results, whereas internal validity refers to the ability of a research design to represent the true causal relationship between an intervention and an effect in the particular circumstances of the research [4]. Both are central to the assessment process but the potential value of an intervention and an effect is often considered dependent on the type of research design used, placing randomized clinical trials (RCTs) at the top [1, 3]. Many recommendations are based on epistemological foundations whereby the intrinsic quality of the studies depends on where research designs are positioned along a hierarchy of evidence [2, 3, 5].

While RCTs can provide very important information, they are generally inadequate to control for crucial interaction effects between a plethora of social variables [e.g., 1, 6]. For these reasons, HTAs and PGs cannot be developed for social interventions on the basis of a single review question that focuses solely on efficacy. For example, an HTA that addresses adherence to antiretroviral therapy for the homeless should consider issues regarding the culture of this marginalized group; in this case, ethnographic and qualitative studies must also be considered as potentially valid scientific evidence. Moreover, in certain situations, RCTs can also become inappropriate, even unfeasible, due to ethical issues. Programs that provide access to mental health services for suicidal or abused youths are a prime example of this.

In order for recommendations to be optimal, they should ideally be based on different types of studies. This can for example be achieved through diversification, an approach that is widely recommended by various authors in the social sciences [7-10]. The complexity of interventions, as well as the importance of capturing different perspectives, including social acceptability or the risk of stigmatization, should be considered and not be limited to issues of efficacy in a controlled environment. Qualitative research, cohort and case studies provide crucial data on these other, relevant perspectives. Such studies do not provide secondary types of data; they should instead be considered a relevant source of core findings. In this article, which builds on our previous work [11-13], some of the challenges related to the use of diverse methods [14-17] in the social sector are reviewed, and a process for developing recommendations is described.

Objective

This paper does not aim to discuss the difference between the methods traditionally used in health field and those used in the social sciences. Based both on traditional method used for the elaboration of HTAs and GPs [14-17] and those in the social sciences it aims to provide a basis for the advancement of the methods used to design HTAs and GPs, by drawing on the epistemology of the social sciences. Hence, this paper aims to determine how the methods used to develop HTAs and PGs can

be adapted to better take into consideration the particular characteristics of complex social problems, by proposing a method for collecting data and developing recommendations adapted to the specificity of social sciences. While this proposed method focuses predominately on the social sciences, it may also potentially contribute to the advancement of the methods used in health research.

Method

The proposed method is the result of the work started at the Institut National d'Excellence en Santé et Services Sociaux (INESSS) in 2011 [12, 13], then pursued further by the authors of this paper [11]. This article paper aims to present the progress of this work since 2015. At the onset of this project, a committee was established by INESSS to design a guideline development process. The initial committee included 33 members, with representatives from INESSS and governmental associations as well as practitioners, service user representatives, universities, organizations that support research in Quebec, and Quebec's Ministry of Health and Social Services. This committee met four times a year between 2011 and 2015. Each meeting lasted approximately 4 hours.

In 2013, a scientific subcommittee (SB, MD, CD) was established to analyze the data collected from the initial committee and to propose a consensual method adapted to the social sector. The tasks of the scientific subcommittee were divided into four main steps: (a) performing a qualitative review of discussions between the experts on the initial committee by collecting, analyzing and synthesizing data. Meetings were taped, transcribed and analyzed based on qualitative method; (b) designing a cognitive map of the data retrieved by the qualitative research to cartography the expert's representation. The cognitive map refers here to a schematic or a synthesis map of collection of beliefs, experiences, and information that the initial committee had on HTA or GP within their specific environment or social

setting. (c) consulting the following databases: PsyINFO (Ovid), PubMed, Current Contents (Ovid), CINAHL (EBSCO), Social Work Abstracts (Ovid), Web of Science (ISI) and ERIC (Ovid), from 1995 to 2015 and grey literature, mainly from the websites of evidence-based agencies and conducting a narrative literature review to confront expert's representation to scientific literature using focus group method, and (d) comparing the data from the meetings of the initial committee with the scientific literature [12]. These steps were completed using the grounded theory approach, a systematic and inductive methodology in the social sciences. Grounded theory is conducted unlike traditional research. Rather than collecting data on the basis of a theoretical framework in order to demonstrate whether a phenomenon is in agreement with a theory, this qualitative approach proposes to collect data without theoretical presuppositions, which will then be analyzed and grouped together to conceptualize new models or theories [18]. In other terms, data to develop the proposed method was based on expert's experiences and knowledge, which have be confront with scientific data in the goal to develop an emerging method for elaborating recommendations in the social sector. Figure 1 summarizes the four steps used to develop the method based on grounded theory.

Results

Six main themes were identified to be in line with the health-related scientific literature: (a) the choice of themes for HTAs or PGs must be based on the needs of the communities; (b) a panel of recognized experts must be involved in the development process; (c) the research question must be clearly formulated and supported by an analytical framework; (d) indicators of final or intermediate outcomes should be identified; (e) the literature research should be structured, comprehensive and reproducible; and (f) the implementation process of
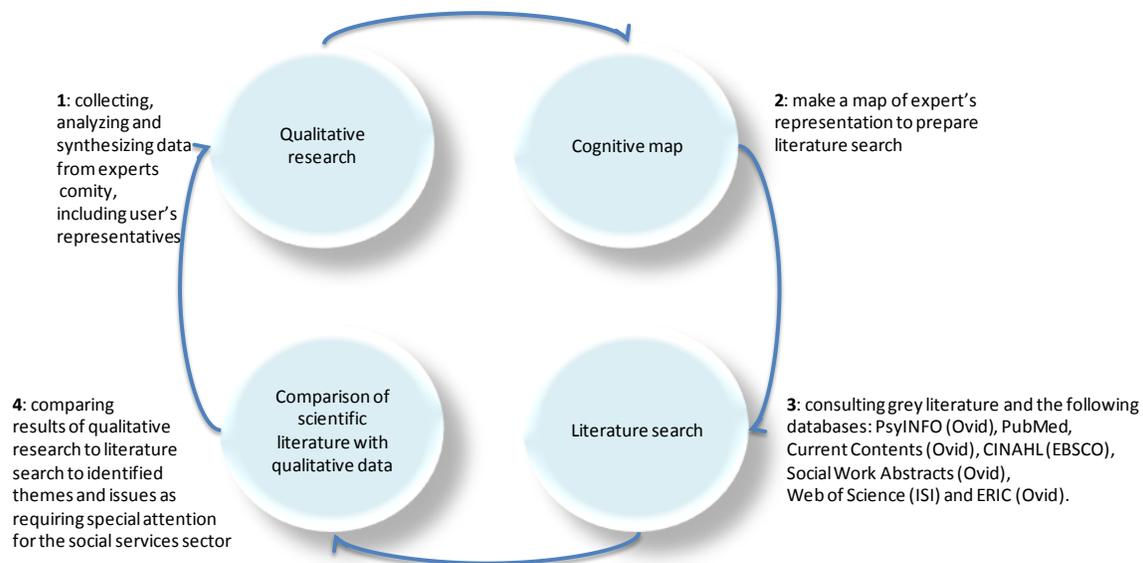
Figure 1. The four steps used to develop the method based on grounded theory

recommendation should be prepared prior to publication.

However, other themes were identified as requiring special attention for the social services sector: (a) type of studies should be diversified rather than prioritized, (b) quality assessment should be rethought, (c) contextual and experiential data should be gathered (beyond data from expert panel groups), and (d) the method used to rank the strength of the recommendations should be clearly outlined, including contextual and experiential data. A discussion of these divergent findings follows, as well as a presentation of a process to develop recommendations specifically related to the social sector.

Diversification and prioritization of scientific studies

HTAs or PGs can address complex procedures, which may have to be understood by asking multiple review questions and using various research designs powerful enough to provide satisfactory answers [8, 9]. For example, a research question can seek to determine the theoretical effectiveness of an intervention. RCTs would be appropriate studies to answer this question. However, a recommendation is seldom limited to

questions of theoretical effectiveness. Research designs such as case studies and cohort studies could then provide data on the intervention's practical effectiveness under routine practice conditions influenced by multiple factors. In addition, it is sometimes necessary to have data on the acceptability of interventions, even if they are theoretically effective. It is therefore important not to determine the relevance of available studies solely based on their internal validity, but rather on their potential to provide an adequate answer to one or more research questions relevant to the project.

Quality assessment of studies

In social sciences, judging the quality of any study implies that we must ensure the relevance and consistency of all stages of the process. The link between each step of the research process must be demonstrated leading to a whole whose parts are inseparable and complementary [19]. Many quality assessment grids can be used to assess the quality of different types of studies. However, not all grids evaluate methodological relevance and consistency, in terms of the overall systematic and rational procedures. The choice of grids should be justified.

Importance of contextual and experiential data

Since the effectiveness of an intervention is always influenced by the context in which it is implemented, the proposed method requires a review of the context in which recommendations are implemented. Contextual data cannot be the basis of HTAs or PGs for the social sector, but they must complement the scientific data. Contextual data refer to: the circumstances of the intervention under study and the conditions related to it [7, 20, 21]. Contextual data cannot be limited to panel consultation and can be collected in a variety of ways, such as by getting field observations, consulting databases (e.g. user records), and reviewing the grey literature (e.g., legislation, collective agreements and professional corporations' documentation) [22].

Experiential data refer to the knowledge of experts about the issues under study and certain questions for which no answers were founded in the systematic review. Experts can include researchers, service users and their families, practitioners, managers and others. However, the term "expert" cannot be used loosely. The individual must be recognized by his peers as an expert and be able to represent a group. The credibility of experts can be established based on factors such as their experience, social commitment, intervention or research work, publications, teaching or training, communications, etc. [11]. Experiential data are generally collected using qualitative research methods, through semi-directed individual or group meetings and open-ended questionnaires.

Method proposed to rank the levels of evidence

The proposed approach is based on a precautionary principle that involves doubt as to the applicability of a recommendation. Because a holistic view of the problem under study requires that various evaluation designs be taken into account, the scientific studies must be assessed to determine whether the results are

consistent. Thus, the more the various types of studies tend to produce the same results (e.g., acceptable, harmful, effective, or ineffective), the more the doubt regarding the evidence is reduced.

Synthesis of scientific data and relative level of evidence

The relative level of evidence is determined by the abundance of the literature and convergence of results. To this end, an eight-level grading system (established, almost established, emerging, not established and acceptable, harmful, effective, and inefficient) is proposed (see table 1). The term "established" (score = 4) means that there is enough converging scientific data to conclude that an intervention is acceptable, harmful, effective or ineffective. The term '' almost'' (score = 3) means that the scientific data are converging but that some doubt remains due to an inconsistency of some results. The term "emerging" (score = 2) means that some converging data provide a basis for finding that an intervention produces a positive or negative effect, while "not established" (score = 0) refers to the absence of converging data.

The proposed method calls for transparency in the process used to determine scores and thresholds between results that are considered established, almost established, emergent or not established. In the event that scientific studies are not available or divergent (not established, score = 0) or tend to converge (emerging, score = 2), other options such as implementing state-of-the-art practices and field assessments should be considered. The various appropriate designs for each research question should be identified according to their relevance and a score should be assigned to each data set.

Triangulation with contextual and experiential data

Although the availability of scientific studies remains the basis for developing recommendations, these data should be compared with, and examined in light of

contextual and experiential data in order to assess their applicability in practice. The triangulation technique is proposed to reduce biases often attributable to the research context (e.g., controlled environment, exclusion of participants with comorbidity, and cultural biases). Using this technique, the value of the data is established by means of various measurements (in this case, scientific, contextual and experiential data) that converge towards the same result or that provide a consistent overall picture or some nuances. In the interest of transparency,

contextual indicators (e. g. legislation, professional code) and experiential indicators (e.g. staff training, perceived effectiveness) need to be specified in order to determine whether the data are consistent. These indicators should also be used to guide interviews with representatives from the different organizations. The proposed scores ranged from 0 to 3 (see table 2). This interval was determined in such a way that the relative weight of the contextual or experiential data did not exceed the relative weight of the scientific data.

Table 1: Effects of an intervention based on scientific data

Examples of review questions	Best available scientific data	Effects of an intervention based on scientific data	Scores
(e.g., What is the effectiveness of X?	The data converge	Established as acceptable, harmful, effective, or ineffective	4
What are the effects of X on subject's quality of life?	The data converge but there is some inconsistencies	Almost established as acceptable, harmful, effective, or ineffective	3
What is the parents' ability to continue their job if X is applied?)	The data tend to converge	Emerging as acceptable, harmful, effective, or ineffective	2
	The data diverge or it is impossible to establish the convergence	Not established	0

Developing recommendations

A panel of experts (researchers, users and their families, practitioners, managers and others) must be involved in developing the recommendations. We recommend that the panel follow these steps:

1) Discuss the results of triangulating scientific data with contextual and experiential data.
2) Discuss the benefits and risks of a practice.
3) Develop initial recommendations and assess their strength.
4) Prepare final recommendations [12].

These experts will review the various triangulated data using a transparent process. Minutes of the meetings should be drafted and made available to the public. Divergent opinions should be recorded in a minority report, and a rationale must be provided for decisions. Various data collection techniques, such as focus groups or consensus-building methods, like the nominal group technique or the Delphi method [19], are commonly used to structure the discussion process. Triangulated data are not converted directly into recommendations. An initial set of

recommendations should be developed using the triangulation method. Experts should then judge the expected effects of an intervention in order to formulate final recommendations: they attempt to qualify the triangulated scientific, contextual and experiential data in order to answer questions about the benefits and risks associated with implementing the recommendations in practice [23].

Table 2: Analytical grid showing the various levels of convergence of contextual and experiential data

Contextual data (score)	Experiential data (score)
Contextual data are very congruent with the scientific data (3)	Experiential data fully converge with the scientific data (3)
Contextual data are mostly congruent with the scientific data (2)	Experiential data generally converge with the scientific data (2)
Contextual data are somewhat congruent with the scientific data (1)	Experiential data converge somewhat with the scientific data (1)
Contextual data are mostly not congruent with the scientific data (0)	Experiential data mostly do not converge with the scientific data (0)

Obviously, each research question should lead to at least one recommendation. However, their relative strength may be different. Once the triangulated data and the benefits and risks associated with the practice have been identified, the experts can determine the strength of the recommendations provided in the HTAs or PGs. To guide this process, we propose a scoring system ranging from 9 (very strong) to 6 (weak) comparing the probabilities of benefits and risks and the implications for the practice. An analytical grid ranking the strength of the recommendations is presented in Table 3. The scale ranks the strength of the recommendations both in terms of the effectiveness or acceptability of an intervention and its ineffectiveness or nuisance. The implications for practice are based on the precautionary principle.

For example, if an intervention is found to be effective, and the triangulated data have been discussed and are given a score of 8, there is a high likelihood that the practice will produce more benefits than risks. The recommendation would be strong and applicable to most users and contexts. Similarly, if another intervention is assessed as "established and harmful", and the triangulated data have been discussed and given a score of 10, this implies that there is a very high probability that the intervention will produce more risks than benefits. The recommendation would be very strong and the intervention must never be used under any circumstances. If another intervention is assessed as effective and emergent, and the triangulated data are given a score of 7, there is a moderate probability that the practice will produce more benefits than risks. The recommendation would be moderately strong and the intervention should be used with caution, for instance, as part of a field or program assessment. Based on the current state of knowledge, if the intervention scores less than 7, it should not be used.

Since an HTA or PG typically involves a number of interrelated review questions, each recommendation must be rated and their relative strength compared. For example, a review question (e.g.,

effectiveness) could lead to a very strong recommendation to produce more benefits than risks. However, a related question (e.g., implementation) could lead to a moderately strong recommendation due to certain risks in some situations (e.g., costs)

or for some populations (e.g., abused children). The strength of the recommendation in terms of effectiveness could therefore be reduced given the risks during the implementation period.

Table 3: An analytical grid ranking the strength of recommendations for a specific question

Rating of triangulated data	Strength of recommendation	Effect of the intervention	Implications for practice	Related question / strength of recommendation	Final rating
≥ 9	Very high	Very high probability that the intervention will produce more benefits than risks or vice versa.	The intervention can be applied to most users and contexts or the intervention cannot be applied to all users and contexts		
8	High	High probability that the intervention will produce more benefits than risks or vice versa	The intervention can be applied to most users in a particular context or the intervention cannot be applied to most users and contexts	(e.g., What are the conditions for implementing X?)	
7	Moderate	Moderate probability that the intervention will produce more benefits than risks or vice versa.	The intervention must be applied with caution and must be evaluated via a field or program assessment or the intervention should be rarely applied and its use justified		
≤ 6	Low	Low probability that the intervention will produce more benefits than risks or vice versa.	The intervention should not be applied at this time		

Based on the proposed method, the formulation of recommendations requires that all data on the target population, specific contexts, and conditions of application be synthesized. It also requires that a transparent approach be used with respect to scientific quality, the strength of the recommendations and validation processes.

In terms of scoring, if the scientific literature is well-established (e.g. efficacy and security, score = 4) and not established about acceptability (score= 0), the strength of recommendation for a specific intervention will still low until that acceptability for the target population (e.g. First Nations) will be demonstrated by research as field evaluation.

Case study

The proposed method has been applied in three projects: two in the area of youths with mental health problems and one related to transitional care for the elderly. One of the projects in youth mental health [24] was an HTA addressing the following evaluation question: Which psychosocial interventions, in conjunction with psychopharmacology, have been deemed effective for individuals aged 12 to 30, presenting with a bipolar spectrum disorder or at risk of developing this mental illness? The stratified diagnostic approach [25] for psychotic and mood disorders was the framework used for analysis.

After selection, 17 out of 3434 studies were retained: three systematic reviews, five randomized controlled trials, five pre-post studies, two case series, one clinical controlled trial, and one case study. The evaluation of quality was conducted using different tools, which were selected based on empirically supported validity. The synthesis of scientific findings demonstrated that, for high-risk individuals, merely one study examining the effects of interpersonal therapies in adjunct with social rhythms on sleep was found hence, the level of evidence remains not established (score 0, see table 1). For participants presenting with early onset bipolar disorder, five randomized controlled trials, four pre-post studies, two case series, and one case study were found. The type of interventions evaluated share several characteristics, including problem solving skills training, cognitive behavioral techniques, and psycho education. Overall, the results converge towards a significant improvement in symptoms related to mood (17/17). The level of evidence is thus established for this indicator (score = 4, see table 1). However, the effects of these interventions on global functioning (5/17), therapeutic compliance (3/17), acceptability (3/17), recurrence of episodes (2/17) and feasibility (2/17) are weaker, as these indicators were not evaluated to the same extent. Nonetheless, given that these effects have a relative trend towards being effective, the level of evidence was considered as emerging (score = 2, see table 1).

Contextual results show that, at the macro level, decision makers had established the political will to transform the institutional structures of the Quebec health system in order to reach the users of this age group. At the meso level, the reform of Quebec's health care system, encouraged interactions between professionals in hospital settings, rehabilitation centers, family and school settings. At the micro level, social interventions for bipolar disorder would no longer be limited to specialized services, but extended to primary care centers as well. No relevant information was found at the exo level. Therefore, the contextual findings fully converge with the scientific data (score = 3, see table 2).

The experiential findings were collected amongst experts via individual semi structured interviews (n = 6). A framework was created for the purpose of validating the scientific findings. The interviews were recorded and transcribed for the analysis. Group consultations (n = 2), lasting approximately three hours, were conducted to discuss the applicability of the scientific findings. Based on the qualitative data collected, the experts believe that programs

for individuals at risk should be implemented with caution, due to the risk of stigmatization. These findings fully converge with the scientific findings (score = 3, see table 2). For early onset interventions, the consulted experts are in agreement that the scientific findings accurately match their experience, in that psychosocial interventions can be beneficial at this stage of the disorder. Moreover, given the challenges in diagnosing bipolar spectrum disorders and the potential problems associated with a false diagnosis, experts believe that psychosocial interventions delivered during a first episode should not target the associated symptoms, but rather offer services to individuals regardless of their diagnosis. This opinion fully converges with the scientific findings (score = 3, see table 2).

Thus, based on the stratification frame of analysis and the triangulation technique proposed, for participants presenting with early onset bipolar disorder, the strength of recommendations about mood symptoms is very high, given the convergence score of the scientific findings (score = 4, see Table 1), the convergence of the scientific findings with the contextual findings (score = 3, see Table 2), and the experiential findings (score = 3, see Table 2). With a total score of 10, the probability that interventions yield more benefits than risks is evaluated as being very high. However, for interventions targeting global functioning, therapeutic compliance, acceptability, episode reoccurrence, and feasibility, the level of scientific proof is only emerging (score = 2, see Table 1) and converges fully with contextual and experiential findings. The recommendation would thus remain elevated (score = 8, see Table 2), though interventions specifically targeting these indicators should only be applied in a specific context and the question about program implementation needs to be addressed.

For individuals at risk of experiencing a first episode, the scientific findings cannot support the efficacy of interventions (effects not established, score = 0) and the contextual and experiential findings converge in that way (scores = 3 and 3). Thus, the probability that interventions produce more benefits than risks is weak (score = 6) and they should not be applied.

Discussion

The development of the proposed method is currently underway and its application in case studies is promising. However, the application of this method is not simple and requires a background in research in order to adequately triangulate the contextual and experiential data with the scientific data. In fact, the proposed method is not a checklist and requires not only an ability to collect data but also a scientific judgment.

First, determining whether there is sufficient scientific evidence to establish if the intervention is effective, promising, ineffective, or harmful depends on the body of literature, the relative weight given to data, as well as the convergence of the data. When convergence is observed, establishing a level of evidence is easy. When the data are divergent, which is not a rare occurrence in the social sector, the level of evidence is lowered. It remains to be determined by how much. This is normally resolved through methodological debates, and, in order to remain transparent, the final decisions are recorded. This strategy can be considered both as a strength and a weakness. On the one hand, it allows for a critical look at the level of evidence in certain fields, in which there is a paucity of RCTs and they do not correspond to the reality of subjects in a non-controlled environment. The proposed method adds to a reflection which has already started in the healthcare sector, such as taking into consideration co-morbidities, the subjectivity of patients and health professionals, as well as environmental effects. However, as this is a semi-structured method, this can introduce a risk of losing methodological rigor. This needs to be taken into consideration when elaborating recommendations supported by methodological bases in social sciences.

Moreover, to elaborate recommendations based on this method, a contextual analysis is necessary in order to identify gaps in the external validity of the scientific literature. An evaluation grid of the context needs to be elaborated in order to understand how to implement the recommendations. In other words, the contextual factors which could facilitate this implementation, as well as potential obstacles and ways to overcome them, need to be compiled. Once again, an ability to analyze contextual factors such as legal texts, the scope of practices of professional orders, collective bargaining agreements, work organization and the physical location where the implementation will take place is necessary. Collecting experiential data also requires expertise in order to develop the interview questions for individuals or for groups (rarely questionnaires with close-ended questions), leading the interviews and discussions as well as analyzing the data collected. This exploratory search allows for the identification of missing information not found in the contextual and scientific literature. This requires an in-depth knowledge of qualitative research, including expertise in software such as QSR N'VIVO. Furthermore, thought must be given to what is meant by the term "expert" in order to use a definition that encompasses varying forms of expertise, including the user user's expertise, in order to guide the elaboration of recommendations. Consequently, the selection process of these experts also needs to be defined.

The proposed method, although it is a semi-structured process, can guide the elaboration of recommendations. However, it requires increased expertise in social science research and increases the completion time of an HTA or PG. Moreover, the questions highlighted previously will need to be resolved or addressed. This work is currently being further developed thanks to the implication of some of the members of Quebec's Social Care Technology and Intervention Community of Practice.

Conclusion

Developing recommendations is not a mundane task, as their application in practice is not without consequences. Proposing recommendations that specifically target vulnerable populations in real life requires attention beyond scientific data. The proposed method aims to support the development of recommendations for social services that take into account the complexity of social problems. By proposing an analysis of the scientific literature in order to access different dimensions that can influence the effectiveness, various types of scientific studies are considered. The scientific data is then compared with contextual and experiential data to establish convergence / divergence. These three types of data are then triangulated.

The proposed method includes a scoring system to make it easier to determine the strength of recommendations as well as the implications for practice. It is our hope that this method will improve the procedures we use to define and optimize our practices in social sciences and may facilitate the integration of evidence in practice within the social sector.

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Conflicts of interest
The authors declare that they have no conflicts of interest.

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