

Determinants and Strategies for the Implementation of a Family-Based Prevention Programme for Children of Parents with Depression: A Pre-Implementation Needs Assessment Using CFIR 2.0 and ERIC

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Research Article

Keywords: Implementation science, Implementation determinants, Implementation strategies, Parental depression, Family-based intervention, Prevention, Children of parents with mental illness

Posted Date: October 20th, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-11391077/v1>

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Additional Declarations: No competing interests reported.

Abstract

Background: Children of parents with depression face a significantly elevated risk of developing mental health problems. Family-based prevention programmes targeting this high-risk group, including *Growing Up Healthy and Happy* (GuG-Auf), have demonstrated promising effects. However, translating evidence-based prevention into routine practice remains a persistent challenge, and research on the implementation of family-based prevention programmes in this population is largely absent. This study conducted a pre-implementation needs assessment for GuG-Auf and derived tailored implementation strategies.

Methods: In a descriptive qualitative design, organisations in Munich, Germany, were approached and offered free training to deliver GuG-Auf. Semi-structured interviews based on the CFIR 2.0 interview guide were conducted with staff from organisations that adopted GuG-Auf ($n = 5$) and those that declined ($n = 2$). For the directed content analysis a deductive category system derived from CFIR 2.0 constructs across all five CFIR domains was used, with each determinant classified as a facilitator, barrier, or ambivalent factor. Barriers were mapped to ERIC implementation strategies via the CFIR–ERIC Matching Tool and contextualised for the study setting.

Results: Among participating sites, facilitators predominated, including a strong fit between the programme and the sites' missions, a perceived gap in care, and intrinsically motivated professionals. As the training was offered free of charge, resources for delivery were sufficient. Central barriers comprised the programme's specificity to parental depression rather than mental illness in general, its complexity, and anticipated participation barriers among families (e.g., stigma and the commitment required). The sites' overall funding situation will become relevant once training is no longer provided free of charge. Non-participating sites recognised largely the same facilitators, but their barriers diverged markedly, reflecting their respective institutional contexts. Barriers were mapped to context-specific ERIC strategies, distinguishing strategies for ongoing implementation from those targeting long-term sustainability and wider adoption.

Conclusions: This study provides a framework-driven pre-implementation needs assessment for a family-based prevention programme targeting a high-risk yet underserved population. Participating sites recognised favourable conditions for delivery, while barriers concerning family participation and training costs require targeted strategies. The findings guide the upcoming implementation phase. The inclusion of non-adopting organisations additionally informs wider dissemination.

Contributions to the literature

- Children of parents with depression are at high risk of mental health problems, yet little is known about how family-based prevention programmes for them can be brought into routine services.
- This study illustrates how a needs assessment conducted before roll-out can identify barriers while they can still be addressed.

- Including services that declined to take part reveals obstacles that studies of adopting services alone would miss.
- The study highlights that existing tools for selecting implementation strategies do not cover the people a programme is meant to reach, such as families.

Background

Worldwide, roughly one in five children (15–23%) lives with a parent with a mental illness [1], most often with a parent affected by depression. These children carry a substantially elevated risk of developing mental disorders themselves [2,3]. A recent meta-analysis found a relative risk of 1.9 and a lifetime risk of 51% for any mental disorder among offspring of parents with depressive disorders [3]. Long-term follow-up data confirm a threefold increased risk of major depression in this group [4]. The intergenerational transmission is mediated by several mechanisms, including impaired parenting and exposure to stressful life contexts [5,6].

These modifiable mechanisms offer a starting point for prevention. Meta-analytic evidence indicates that targeted preventive interventions for children of parents with mental illness reduce the incidence of the same disorder as the parent by 47% [7] and yield a small but significant reduction in risk of disorder, both for parental mood and anxiety disorders [8] and for parental depression specifically [9]. Among these, the Family Group Cognitive-Behavioral intervention (FGCB) is one of the most extensively evaluated programmes. It combines psychoeducation with training in children's stress coping and parenting skills, thereby addressing some of the mechanisms of transmission directly, and has been shown to reduce children's risk of developing depression [10]. Its German adaptation, *Growing Up Healthy and Happy* (GuG-Auf), was evaluated in a randomised controlled trial which showed a significant reduction in the risk of developing depression in participating children [11]. Beyond these benefits for individual families, investing in prevention for this group is also warranted from an economic perspective. Childhood mental health problems entail substantial long-term costs to society [12], while preventive interventions for mental health have generally been found to be cost-effective or cost-saving [13,14].

However, these benefits can only be realised if effective programmes such as GuG-Auf actually reach the families in need. This depends on successfully translating evidence into routine care. Yet this step has proven persistently difficult, as few evidence-based interventions have successfully made this transition [15,16]. This gap is driven less by the strength of the evidence itself than by contextual barriers across multiple levels of the implementing setting [16,17]. To enable sustainable implementation, deliberate planning and research support are therefore required. Identifying barriers and facilitators before roll-out allows strategies and the programme itself to be tailored to local contexts, increasing the likelihood of success [18,19].

Implementation research in the field of parental mental illness remains limited, and theory-guided analyses of implementation determinants are rare. *Let's Talk about Children*, a brief, low-threshold

conversation-based intervention for parents with mental illness, is the most extensively studied case. It has been implemented and evaluated across several countries and service contexts, including a district-wide introduction into health, social and educational services in Finland [20], although sustaining routine delivery has proven difficult [21]. Beyond this, evidence comes largely from adjacent fields. Importantly, reviews of parenting programmes in real-world settings [22] and of evidence-based practice in child and adolescent mental healthcare [23] indicate that the delivery context strongly affects implementation success.

To capture such contextual determinants, the Consolidated Framework for Implementation Research (CFIR) integrates implementation theories in a multilevel structure spanning the intervention, individuals, setting and implementation process [17,24]. CFIR has been applied in similar contexts, for example to capture practitioners' and leaders' perspectives on a complex parent-based preventive intervention in Norwegian municipal services [25] and to guide a process evaluation of *Let's Talk about Children* in China [26]. The 2022 revision (CFIR 2.0) further distinguishes Innovation Deliverers from Innovation Recipients [27]. This distinction is important for voluntary family-based programmes whose success depends as much on families' willingness to engage as on providers' delivery. CFIR determinants can be linked to the Expert Recommendations for Implementing Change (ERIC), a compilation of 73 discrete implementation strategies [28], via the CFIR–ERIC Matching Tool [29]. Applied before delivery begins, this combination allows strategies to be selected for determinants that are anticipated rather than already entrenched, as in one study developing pre-implementation strategies for a parenting intervention [30]. So far, CFIR has predominantly been applied retrospectively to sites already engaged in implementation [18], and where it has been used prospectively in family-focused interventions, this has largely been confined to adopting sites [e.g., 25]. Determinants that keep services from adopting a programme in the first place therefore remain largely unexamined, even though they could be most critical to reach and acceptance.

This study addresses these gaps by conducting a pre-implementation needs assessment of GuG-Auf, guided by CFIR 2.0 and ERIC. Specifically, this study aims to (1) identify determinants (barriers and facilitators) of GuG-Auf implementation at cooperating sites, (2) identify determinants underlying decisions against participation, and (3) derive corresponding implementation strategies using the CFIR–ERIC Matching Tool.

Methods

The authors confirm that the manuscript meets the COREQ [31] and StaRI [32] guidelines (Additional file 1 and 2). The study was approved by the ethics committee of the LMU Medical Faculty (No. 24-0699) and the University Hospital's Data Protection Officer.

Study Design

The implementation steps reported in this study are part of a larger, ongoing implementation project, which will be analysed using the Implementation Research Logic Model (IRLM) [33]. This paper

addresses its first two steps, determinants and strategy selection, in the pre-implementation phase. Subsequent steps, including mechanisms and outcomes, will be reported in a forthcoming paper.

This study employed a descriptive qualitative research design to conduct a needs assessment among external institutions interested in delivering GuG-Auf. Semi-structured interviews were conducted with staff from these institutions to identify facilitators and barriers across the CFIR domains. In addition, interviews were conducted with institutions that had decided against participation in the implementation project to identify determinants of non-adoption. For the barriers identified across both groups, corresponding implementation strategies from the ERIC compilation were selected using the CFIR–ERIC Matching Tool and tailored to the implementation context. These strategies constitute proposals. Their application and evaluation in practice fall outside the scope of this paper.

Participants and Procedure

Recruitment

Recruitment of participating institutions took place between September and December 2025 in Munich, Germany. Participation meant committing to have staff trained and to deliver at least one group. Institutions were offered free training, materials, and ongoing support.

Institutions working with families affected by parental depression were recruited through four channels: (1) targeted e-mail contact with 14 institutions identified via internet search; (2) a public call for participation on Instagram; (3) a regional prevention network; and (4) a presentation at the Munich working group on children of parents with mental illness.

Of the 14 institutions contacted directly, three agreed to participate, one declined immediately, four did not respond, and six entered initial discussions but ultimately decided against participation. Two of the latter agreed to be interviewed, nonetheless. One institution was recruited through a regional prevention network, and one institution reached out on its own initiative. In total, five institutions participated in the implementation project, and two non-participating institutions took part in interviews.

Study Procedure

After recruitment, staff of the institutions were informed by telephone about the intervention and the implementation project, with an emphasis on the needs assessment. Before the interview, written informed consent was obtained from all participants. Interviews were conducted face-to-face, either at the institution or the research department, as participants preferred. All interviews were conducted in German by the first author (AB; doctoral researcher and psychologist), who had prior experience leading GuG-Auf groups and was responsible for project coordination. This prior contact, inherent to recruitment,

may have facilitated rapport. To ensure reflexivity regarding the interviewer's involvement in the project, coding decisions were discussed regularly within the research team.

Interviews were audio-recorded and lasted 25 to 67 minutes at participating sites and 23 minutes at both non-participating sites.

Participants

The final interview sample comprised 10 staff members from seven institutions: seven prospective group leaders from the five institutions participating in the implementation project, and three staff members from the two institutions that had decided against participation but agreed to be interviewed. One interview was conducted per institution, with one or two participants each. Participating institutions included parenting counselling centres ($n = 3$), social psychiatric services ($n = 1$), and health centres ($n = 1$). The two non-participating institutions were a family centre ($n = 1$) and a psychiatric outpatient clinic within an adult psychiatric hospital ($n = 1$). Interviewees represented the following professional groups: social workers, educators, psychologists, and doctors (primarily psychiatrists).

Sample size adequacy is justified by the concept of information power [34], according to which fewer participants are required when a study has a narrow aim, a specific sample and a theory-guided analysis. All three apply here, given its focus on pre-implementation determinants, its purposive sample of prospective deliverers, and its deductive analysis guided by CFIR.

Intervention

GuG-Auf is a group- and family-based intervention designed for parents with depression and their children aged eight to 17 years who do not themselves have a mental disorder. It consists of 12 face-to-face sessions, each lasting 90 minutes. Eight of these sessions are delivered weekly, while the remaining four are booster sessions delivered every two weeks. Each group is attended by three to five families and led by two trained group leaders.

The programme provides psychoeducation about depression, trains children in stress coping and supports parents in maintaining warmth and structure during depressive episodes. Eight sessions are held jointly with all family members; in four, parents and children work in parallel groups, each facilitated by one group leader. Delivery follows a structured manual with accompanying materials, which is available upon reasonable request [35].

Measures

Data were collected through semi-structured interviews based on the CFIR Interview Guide Tool [36] which was shortened and adapted to the present implementation in two context-specific versions, one

for participating and one for non-participating sites (Additional file 3). The guides focused on identifying structural conditions, barriers, and facilitators relevant to implementation. Additional questions on training and materials, requested by the project team, were excluded from the analysis, as they were not relevant to implementation determinants.

Strategy of Analysis

Transcription and Data Preparation

Interviews were transcribed using f4 automated transcription software [37] and subsequently proofread by the first author. Prior to coding, two coders (AB and CB: psychology master's student) read all transcripts repeatedly and recorded initial notes.

Coding System

The analysis followed a directed content analysis approach [38], using a deductive category system derived from CFIR 2.0 [27]. The coding system comprised four hierarchical levels: (1) the five CFIR domains; (2) a selection of CFIR constructs nested within these domains; (3) coding categories developed inductively within each construct during analysis; and (4) coded segments as the smallest unit of analysis. Definitions of levels (1) and (2) are reported in Table 1.

Within the Individuals domain, Innovation Deliverers and Innovation Recipients were examined separately. As no families were interviewed, all findings regarding the innovation recipients are based on the professionals' accounts.

At the construct level, 21 of the 48 CFIR 2.0 constructs were selected for the present analysis (Table 1). The rationale for their selection is detailed in the codebook (Additional file 4). Each construct was operationalised through a definition (adapted from [27]) and anchor examples. Additionally, decision rules were developed to address conceptual overlap between constructs.

Coded segments were assigned to CFIR constructs and classified as barriers, facilitators, or as ambivalent. Within each construct, segments were synthesised into coding categories summarising the core finding, each supported by a representative quote. Categories comprising segments of a single valence retained that valence. Categories comprising segments of both valences, or any ambivalent segment, were classified as ambivalent.

Coding Procedure

Coding was also conducted in f4 software [37]. Initially, both coders independently coded all interviews and subsequently discussed discrepancies. This led to further refinement of construct definitions and

boundary rules. Following the revision, two of the seven interviews were independently double-coded to assess inter-rater reliability using Cohen's kappa, which indicated substantial agreement ($\kappa = 0.76$) [39]. Agreement was calculated at the level of segment-by-segment overlap, including the valence classification. All remaining interviews were coded by the first author. Uncertain assignments were resolved by consensus with the second coder. Interviews from participating and non-participating institutions were reported separately using the same coding system.

Mapping to Implementation Strategies

Coding categories classified as barriers were subsequently mapped to implementation strategies using the CFIR–ERIC Matching Tool [29]. The tool draws on a survey in which implementation experts selected ERIC strategies they considered best suited to address each of the original CFIR constructs framed as a barrier. It returns a ranked list of expert-endorsed ERIC strategies per barrier and is intended to support rather than prescribe selection [29]. In our study, we used the updated version of the Matching Tool for CFIR 2.0, which maps the original endorsement data onto the updated CFIR construct set [40]. No fixed endorsement cut-off was applied. Instead, the ranked output was reviewed for each barrier, and strategies were selected based on their endorsement score and their applicability to the present context. Because the endorsement data derive from the original CFIR, several CFIR 2.0 constructs are not represented, in particular the characteristics of the Individuals domain and the constructs Compatibility (Inner Setting) and Local Conditions (Outer Setting). For barriers coded to these constructs, the tool yielded no adequate match, and strategies were therefore assigned conceptually on the basis of the ERIC definitions [28]. Each selected strategy was then specified for the present implementation context by the first author and reviewed by CB and BP.

As strategies were more usefully distinguished by time horizon than by institution type, they were classified into three groups: (i) strategies applicable to the ongoing implementation project; (ii) strategies addressing barriers that become relevant in the long term, concerning sustainability and wider adoption; and (iii) strategies addressing barriers rooted in structural conditions, which fall outside the mandate of the implementation team.

Insert Table 1 near here

Results

The complete resulting analysis matrix with illustrative quotes for all constructs is provided in Additional file 5.

Facilitators and Barriers in Participating Sites

Figure 1 summarises the determinants at participating sites structured by the five CFIR domains.

Innovation Domain

Facilitators. The programme's evidence base was consistently recognised and valued across sites (*Innovation Evidence Base*). The absence of comparable interventions for this target group was seen as a further advantage: "We have no group programme specifically addressing this issue" [P21] (*Innovation Relative Advantage*). Professionals also valued the methodological flexibility the programme allows, including the option to simplify its language for different family contexts (*Innovation Adaptability*). The programme's structured design and its stress-based framing, which was perceived as less stigmatising and more accessible than addressing the parental illness directly, were likewise viewed as facilitating factors (*Innovation Design*). Cost was not perceived as a barrier, although this may change if training shifts to a fee-based model (*Innovation Cost*).

Barriers. The programme's specific focus on parental depression was perceived as a potential barrier: "We don't really have anyone right now who has, so to speak, just depression." [P41] (*Innovation Adaptability*). In addition, several aspects of the programme were perceived as complex (*Innovation Complexity*). For example, the scope of 12 sessions was viewed ambivalently, being perceived both as a potential barrier and as an opportunity. Furthermore, the involvement of parents alongside their children requires the entire family to be available, which poses a scheduling challenge. Finally, some sites reported difficulties accommodating the weekly rhythm of the first eight sessions within their settings.

Outer Setting Domain

Facilitators. Few other services for children of parents with mental illness exist in the sites' catchment areas, which is conducive to the implementation of GuG-Auf (*Local Conditions*). All sites also partner with organisations serving similar groups, and some belong to multi-site providers, extending the programme's potential reach: "And if we couldn't fill such a group with our own clients here, we would open it up. Then we would see whether we could publicise it in the other centres." [P21] (*Partnerships and Connections*). Finally, federal and municipal regulations also support implementation, including the German Prevention Act (Präventionsgesetz), Section 20 of the Child and Youth Welfare Act (SGB VIII), under which one site classified the programme as a follow-up support service, and the City of Munich's health guideline (Leitlinie Gesundheit) (*Policies and Laws*).

Barriers. Sites pointed to public budget cuts, which constrain the time and staff resources available for implementing new programmes: "(...) with these austerity measures and such, it is also difficult because it naturally ties up a lot of time and resources, and we, for example, already had a staff vacancy last year and have one again this year." [P11] (*Local Conditions*).

Inner Setting Domain

Facilitators. The sites perceived a gap in their own service portfolios: although children of parents with mental illness are part of their mandate, they are not consistently reached by existing services (*Tension for Change*). Implementation is further facilitated by the sites' prior experience with group-based programmes and by their systemic orientation, which is also the conceptual foundation of the programme (*Compatibility*). Some sites were willing to prioritise the programme at the expense of regular counselling capacity (*Relative Priority*). More broadly, the programme aligns well with the sites' missions: they are responsible for the target group and mandated to provide preventive services (*Mission Alignment*). Finally, within the implementation project, all sites have sufficient staff, space, and funding to deliver the programme (*Available Resources*). However, staffing was viewed ambivalently. While two trained professionals per site are sufficient to run the programme, some sites could not send more than two to the training, leaving no substitutes in case of absence.

Barriers. One site reported serving few children in the programme's target age range, limiting the fit between the programme and its clientele (*Compatibility*). Time constraints were a further barrier, as staff capacity at some sites is limited (*Available Resources*). Two barriers were identified that are relevant in the long term: the instability of institutional funding generally and the withdrawal of funding for staff training: "[Participating free of charge] was a strong motivation, because we currently have no training budget at all." [P11] (*Available Resources*).

Individuals Domain – Deliverers

Facilitators. All prospective deliverers have relevant qualifications and experience with parents with mental health problems and their children (*Capability*). All sites grant their staff the freedom to deliver the programme within their regular duties (*Opportunity*), and all professionals reported being intrinsically motivated (*Motivation*).

Barriers. The only barrier was that afternoon and evening sessions may fall outside some staff members' working hours: "The point that still worries me a bit (...) is that it takes place in the afternoon and evening. (...) For me, that is actually a time when I don't work." [P51] (*Opportunity*).

Individuals Domain – Recipients

Facilitators. Professionals perceived a clear need for the programme among the target group (*Need*). Moreover, one of the major advantages of implementing the programme within existing services is that many families are already motivated to participate: "If you take the families who are already connected, where there is already some contact, who feel more attached to us here, then they are also more likely to come." [P71] (*Motivation*).

Barriers. Characteristics of the target group itself were seen as possible challenges, including the burden of the parental illness as well as limited language skills, educational background, and capacity for reflection. Relatedly, the demands of the programme content were questioned regarding this clientele:

"From what we have seen so far, I thought to myself: oh dear, whether our clients can manage that." [P41] (*Capability*). Single parenthood, limited social support and lack of time were seen as structural obstacles to participation in the time-intensive programme (*Opportunity*). Additionally, professionals expressed concerns regarding families' motivation: they considered the perseverance and commitment the programme requires to be demanding, and they expected stigma to deter some families from participating: "I do believe there are parents who say, yes, I want to do something for my children, but I don't want to name it like that or frighten them." [P71] (*Motivation*).

Process Domain

Facilitators. Participants articulated concrete next steps during the interviews, beginning with initial scheduling considerations (*Planning*). Moreover, sites themselves proposed strategies to address some of the anticipated barriers: establishing reminder structures to support families' perseverance, simplifying programme content for some families, and opening groups to families from other locations of the same provider organisation (*Tailoring Strategies*). The first two of these are taken up in the strategies section. Finally, sites reported plans to discuss the programme with colleagues and leadership (*Engaging*).

Facilitators and Barriers at Non-Participating Sites

Facilitators

The non-participating sites recognised largely the same facilitating factors as the participating sites. Both sites maintain partnerships with other organisations (*Partnerships and Connections*), and few other services for the target group exist in their catchment areas (*Local Conditions*). Professionals at both sites expressed intrinsic interest in delivering the programme (*Motivation – Deliverers*) and perceived a clear need among the target group (*Need – Recipients*). The family centre additionally noted the lack of alternative programmes as an advantage (*Relative Advantage*) and a good fit between the programme and its mission (*Mission Alignment*). The same site considered its staff, time, and space sufficient, but only under the condition of secured funding (*Available Resources*).

Barriers

As the barriers reported by the two non-participating sites diverged substantially along their institutional contexts, findings for these sites are reported separately.

Barriers in the family centre. For the family centre, which must partially finance its own services, the decisive barriers were economic: budget cuts by its funding bodies were acutely felt (*Local Conditions*) and delivering the programme would only have been feasible with external funding, for instance for a

staff position financed through the project (*Available Resources*). In addition, the family centre primarily serves families without clinical concerns, and the professionals were concerned that the target group would not find its way to their services, even though they would like to reach them: "Of course, everyone is welcome to come to us, but I don't think they come to us at all. Unfortunately, they do not find us." [NP32] (*Compatibility*).

Barriers in the psychiatric outpatient clinic. The barriers were primarily related to the fit between the programme and the clinic's remit and service context rather than to funding alone, although the requirement to operate economically also rendered the programme difficult to bill within the outpatient unit (*Local Conditions*). Professionals saw a family-oriented preventive programme for children as lying outside the clinic's core mandate of treating adults (*Mission Alignment*). Accordingly, the outpatient setting was considered unsuitable, and cooperation with the inpatient ward was suggested: "I think it would be much better in cooperation with our ward, with the chronically depressed patients." [NP62] (*Compatibility*). Moreover, only one professional would have been available for delivery (*Available Resources*), and the staff, coming from adult psychiatry, felt they have insufficient experience in working with children (*Capability – Deliverers*). Regarding the recipients, professionals anticipated barriers specific to the psychiatric context: some patients were considered too severely burdened to participate in a group format (*Capability – Recipients*), and reservations were expected about bringing one's children into a psychiatric setting, joining a group with unknown patients, and discussing parenting as a sensitive, personal topic, as well as a degree of treatment fatigue in some patients (*Motivation – Recipients*).

Addressing the Barriers with Suitable ERIC strategies

The identified barriers and the matched ERIC strategies are presented in Table 2, grouped into strategies for the ongoing implementation, strategies for long-term sustainability and wider adoption, and barriers beyond the scope of project-level strategies. Barriers addressable by a common strategy are presented jointly, even where they originate from different CFIR domains or from participating and non-participating sites.

Insert Table 2 near here

Discussion

Evidence-based preventive interventions for parents with depression and their children have been developed, yet the determinants of their successful implementation remain to be systematically investigated. This pre-implementation needs assessment addressed three aims. The first was to identify determinants of implementation at five participating sites. Facilitators were largely consistent across sites and comprised a perceived gap in care, qualified and motivated staff, sufficient resources, and a supportive statutory framework, whereas barriers concerned the explicit focus on parental depression, the scope of the programme, characteristics of the target group, and the long-term financing of staff training. The second aim concerned determinants underlying decisions against participation: the two

non-participating sites differed in what proved decisive, underlining how context-specific these determinants are. Third, 22 context-specific implementation strategies were derived from ERIC [28] using the CFIR–ERIC Matching Tool [40].

Determinants at Participating Sites

A striking feature of the CFIR analysis was that a large proportion of barriers related to Innovation Recipients. Consistent with this, a scoping review of 31 studies of family-focused programmes found most barriers under Opportunity among Innovation Recipients [41]. Similarly, a review of suicide prevention found that the fit between an intervention and the needs and resources of the target group was the most frequent barrier [42]. Deliverers' concerns here echo recipients' reports elsewhere: families taking part in whole-family programmes for parental mental illness described the weekly sessions and between-session exercises as tiring and time-consuming [43]. Interestingly, the Complexity of the content and duration of GuG-Auf was described as challenging primarily in combination with the recipients' constraints, consistent with evidence that determinants act in combination rather than individually [44]. The prominence of recipient-related rather than deliverer-related determinants likely reflects the voluntary nature of the programme. This contrasts with interventions which are delivered within *treatment* settings, where factors relating to the deliverer more strongly predict implementation success. This supports CFIR 2.0's distinction between deliverers and recipients [27].

Second, implementation was facilitated by a pronounced Tension for Change. All sites perceived a clear gap in care for children of parents with depression. This was closely tied to the programme's Relative Advantage, as respondents saw GuG-Auf as filling a void rather than improving existing provision. That this holds for a programme of demonstrated efficacy [11] illustrates the translation gap described for evidence-based interventions [15,16], and indicates how far this population remains underserved.

Third, Mission Alignment and Compatibility were key facilitators. Preventive work with children of parents with depression fell within the remit of the participating sites, and their systemic, family-oriented working practices made the programme a natural extension to existing activity. This finding replicates a CFIR-based assessment of a comparable parent-based preventive intervention which also found the combination of Compatibility and Mission Alignment as a key determinant of implementation [25].

Determinants at Non-Participating Sites

The combination of Compatibility and Mission Alignment at the participating centres contrasts with the situation in the non-participating psychiatric outpatient clinic, where despite close proximity to the target group and the recognition that there is a gap in care for parents with depression, the site did not perceive GuG-Auf as falling within its remit. This mismatch cannot be directly changed through implementation strategies. Instead, alternative forms of family involvement and reaching the children of adult patients across providers may be more indirect strategies towards implementation. For the family centre, the lack

of Available Resources (funding) proved decisive in its decision not to deliver GuG-Auf. This was also one of the eight most influential determinants in a systematic review of CFIR-based ratings across settings [45]. The family centre's interest in the programme suggests that delivery at this site would be feasible should its funding situation change. Importantly, the findings from the non-participating sites identify unique determinants at markedly different levels, neither of which would have been apparent from interviews conducted within adopting institutions only.

Implementation Strategies

In total, 22 strategies were derived from the CFIR-based analysis of determinants. Some can be applied within the ongoing project, e.g., softening the inclusion criteria to sub-clinical depressive symptomatology or piloting an alternative session frequency. Others address the conditions for sustained provision and wider adoption, e.g., securing external funding for staff training or preparing practicable billing pathways. The strategies differ in what they involve, in whom they involve, and in when they can be put in place, from adjustments a site can settle within its own team to measures that depend on the programme developers, cooperating services, or funding bodies outside the project.

A large proportion of barriers related to the recipients of the intervention, yet the CFIR–ERIC Matching Tool offers no counterpart for them, as it is built on the CFIR 1.0 structure. Strategies for these barriers were therefore derived conceptually from the ERIC definitions and selected for the specific context, as in comparable pre-implementation work [30]. Limited congruence between the output of matching tools and the setting is not specific to this study. Context-specific adaptation is the most frequently reported challenge across applications of the tool in healthcare, and its incomplete alignment with CFIR 2.0 has been noted elsewhere [46]. Comparable mismatches have also been described in community-based prevention [47]. A related point concerns the reach of the strategies: none of them is delivered to the families directly. They are carried out by the deliverers, and whether they take effect depends on how families respond, so the strategies can create the conditions for participation but not secure it. Finally, strategies were derived for barriers with no immediate bearing on delivery at the participating sites, namely those reported by the non-participating sites and those arising in the long term. Since these are likely to recur during dissemination, addressing them now is relevant to a future nationwide roll-out.

Strengths and Limitations

Strengths of this study include the implementation of an intervention with a strong evidence base, developed for a population with a clearly documented need. To our knowledge, it is the first systematic assessment of implementation determinants for a family-based preventive programme for children of parents with depression. The value of collecting data before implementation began is that determinants are captured while still modifiable rather than reconstructed retrospectively [18]. Furthermore, the sample spanned different institution types, including institutions that had declined participation, revealing determinants that would otherwise have remained invisible. As such, the study also identified

strategies for both immediate delivery and longer-term provision. Across these markedly different service contexts, the constructs of CFIR 2.0 captured the determinants reported, indicating that the framework is well suited to this field.

Limitations include the fact that all sites are located in one urban region, so determinants relating to funding and sector boundaries may not apply elsewhere. Recruitment ended once five institutions had agreed, so not all eligible institutions in the region could take part. As such, and since participation was voluntary, institutions with greater capacity or leadership support may be over-represented and the barriers identified may represent the lower end of the spectrum present in the wider field. The institutions, particularly the two non-participating ones, differed considerably in setting, so their accounts illustrate distinct contexts rather than common patterns. An additional limitation is that interviews were conducted with professionals rather than policy makers. Therefore, information on resources and budget cuts is second-hand and, more importantly, recipient-level determinants reflect assumptions rather than families' own perspectives. Interviews also took place before the deliverers' training, when detailed information about the programme was not yet available. As the interviewer also coordinated the implementation project, social desirability bias cannot be ruled out. Finally, mapping the Matching Tool [29] onto CFIR 2.0 required interpretive decisions, and intercoder agreement reached only the substantial range ($\kappa = 0.76$) [39]. With 21 constructs, higher agreement is difficult to achieve, as even experienced users report conceptual overlap between CFIR constructs [27].

Implications for Future Research

As this study addressed the Determinant and Strategy components of the Implementation Research Logic Model [33], future research should extend this to assess Implementation Outcomes across the participating sites to examine how far the strategies derived here prove applicable in practice. Wider dissemination should include rural regions and other federal states. Future implementation research in this field should also incorporate the perspectives of the target group, which the current study only captures indirectly.

More broadly, although a strategy compilation for community settings and an accompanying selection process are available [48,49], both operate at the level of CFIR domains rather than constructs and neither distinguishes recipients within the Individuals domain. The Matching Tool would therefore benefit from extension to constructs not represented in its original version, particularly those relating to Innovation Recipients. A further question concerns the prospective use of CFIR, which does not distinguish anticipated from observed determinants. Addressing this issue might make prospective determinant profiles more informative for planning.

Conclusion

Children of parents with depression carry a substantially elevated risk of developing mental disorders themselves, and effective preventive programmes for this group exist. However, few of these

interventions have been successfully implemented in practice. This study highlights the contribution of a systematic, theory-guided assessment of pre-implementation determinants: barriers are identified while they are still modifiable, and strategies can be tailored to the sites that will deliver the programme. In this study, delivery proved conditional on whether preventive, family-oriented work belonged to a site's remit and routines. Due to the voluntary nature, barriers related predominantly to the families' readiness to participate. Beyond GuG-Auf, the study provides an approach to studying the implementation of prevention: a prospective design, the inclusion of non-adopting sites and a structured derivation of strategies.

Abbreviations

CFIR: Consolidated Framework for Implementation Research

ERIC: Expert Recommendations for Implementing Change

FGCB: Family Group Cognitive-Behavioral intervention

GuG-Auf: Gesund und Glücklich Aufwachsen (Growing up Healthy and Happy)

IRLM: Implementation Research Logic Model

LMU Munich: Ludwig-Maximilians-Universität München

SGB VIII: Sozialgesetzbuch Achtes Buch (German Social Code, Book VIII - Child and Youth Welfare)

Declarations

Ethics approval and consent to participate

The ethics committee of the Medical Faculty of the LMU first approved the study on 07. January 2025 (Nr. 24-0699). Amendments to include the evaluation of the implementation outside the LMU hospital were approved on 02. February 2026 (24-0699_2). The University Hospital's Data Protection Officer has approved data collection and storage procedures. Written informed consent was obtained from all participants.

Consent for publication

Not applicable.

Availability of data and materials

All materials supporting the findings of this study, including the interview guides, the CFIR 2.0 codebook and the analysis matrix, are included in this published article and its Additional files. The interview transcripts generated and analysed during the current study are not publicly available due to the terms of participant consent, which restrict access to the research team, and the risk of participant identification given the small number of participating sites.

Competing interests

The authors declare that they have no competing interests.

Funding

This study was funded by the Hans und Klementia Langmatz Stiftung. The funder had no role in the design of the study, data collection, analysis, interpretation or writing of the manuscript.

Authors' contributions

AB conducted all interviews, performed the data analysis and drafted the manuscript. AB and CB developed the coding framework; CB acted as second coder and contributed to the literature search. AB, BP and GSK contributed to the conceptualisation of the project. BP contributed to the study design and supervised the project throughout. All authors provided feedback on the manuscript and read and approved the final version.

Acknowledgements

We thank Alexandra Pelz for her support during the initial phase of the project and the interns of the PRODO research group for their contributions to the project. We are grateful to all interview participants for sharing their time and experiences.

The authors used Claude (Anthropic) for language editing to improve readability and style. The tool was not used to generate content, analyse data or interpret findings. The authors reviewed all edits and take full responsibility for the content of this manuscript.

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Tables

Table 1

CFIR 2.0 domains and construct definitions included in the deductive category system in this study

CFIR Domain	CFIR Construct	Construct Definition <i>The degree to which:</i>
Innovation Domain <i>(The "thing" being implemented; in this study GuG-Auf)</i>	Innovation Evidence Base	The innovation has robust evidence supporting its effectiveness
	Innovation Relative Advantage	The innovation is better than other available innovations or current practice
	Innovation Adaptability	The innovation can be modified, tailored, or refined to fit local context or needs
	Innovation Complexity	The innovation is complicated, which may be reflected by its scope and/or the nature and number of connections and steps
	Innovation Design	The innovation is well designed and packaged, including how it is assembled, bundled, and presented
	Innovation Cost	The innovation purchase and operating costs are affordable
Outer Setting Domain <i>(The setting in which the Inner Setting exists; in this study the German healthcare and child and youth welfare systems)</i>	Local Conditions	Economic, environmental, political, and/or technological conditions enable the Outer Setting to support implementation and/or delivery of the innovation
	Partnerships and Connections	The Inner Setting is networked with external entities, including referral networks, academic affiliations, and professional organisation networks
	Policies and Laws	Legislation, regulations, professional group guidelines and recommendations, or accreditation standards support implementation and/or delivery of the innovation
Inner Setting Domain <i>(The setting in which the innovation is implemented; in this study the participating and non-participating organisations)</i>	Tension for Change	The current situation is intolerable and needs to change
	Compatibility	The innovation fits with workflows, systems, and processes
	Relative Priority	Implementing and delivering the innovation is important compared to other initiatives
	Mission Alignment	Implementing and delivering the innovation is in line with the overarching commitment, purpose, or goals in the Inner Setting
	Available Resources	Resources are available to implement and deliver the innovation

Individuals Domain <i>(The roles and characteristics of individuals; coded separately for Innovation Deliverers (the professionals delivering GuG-Auf) and Innovation Recipients (families affected by parental depression))</i>	Need	The individual(s) has deficits related to survival, well-being, or personal fulfilment, which will be addressed by implementation and/or delivery of the innovation
	Capability	The individual(s) has interpersonal competence, knowledge, and skills to fulfil role
	Opportunity	The individual(s) has availability, scope, and power to fulfil role
	Motivation	The individual(s) is committed to fulfilling role
Process Domain <i>(The activities and strategies used to implement the innovation; in this study the pre-implementation activities and plans at the sites)</i>	Planning	Identify roles and responsibilities, outline specific steps and milestones, and define goals and measures for implementation success in advance
	Tailoring Strategies	Choose and operationalise implementation strategies to address barriers, leverage facilitators, and fit context
	Engaging	Attract and encourage participation in implementation and/or the innovation

Reproduced from Damschroder et al. (2022)

Table 2

CFIR 2.0 barriers and matched ERIC implementation strategies, specified for the study context

Barrier (and respective CFIR constructs)	Proposed ERIC Strategy	Specified Strategy
Strategies for the ongoing implementation project		
Depression specificity (<i>Innovation Adaptability</i>): parents presenting with depression alone, without comorbidities or additional psychosocial burdens, are seen as rare in practice.	<i>Promote adaptability</i> : Identify the ways a clinical innovation can be tailored to meet local needs and clarify which elements of the innovation must be maintained to preserve fidelity.	Soften the inclusion criteria : require depressive symptomatology rather than a formal sole diagnosis; accept comorbidities where group dynamics permit.
Parental involvement (<i>Innovation Complexity</i>): perceived as demanding; merely 'sending' the child would be easier for some families.		Maintain parental involvement as fidelity-relevant; mark sessions in which parental participation is least central as optional for exceptional cases; allow other close caregivers to participate alongside the affected parent.
Weekly format (<i>Innovation Complexity</i>): described as organisationally difficult.	<i>Conduct cyclical small tests of change</i> : Implement changes in a cyclical fashion using small tests of change before taking changes system-wide; results are studied for insights on how to do better.	Pilot alternative session rhythms (e.g., biweekly) during the first implementation cycle; allow sites to trial different schedules.
Target group fit – age range (<i>Compatibility</i>): the clientele of one site consists mainly of younger children.	<i>Build a coalition</i> : Recruit and cultivate relationships with partners in the implementation effort.	Establish referral pathways with services that are already in contact with the target group (e.g., psychiatric services); complement with targeted outreach to make the offer visible to affected families.
Target group fit – clinical burden (c) (<i>Compatibility</i>): the family centre primarily serves families without clinical concerns, though it would like to reach this group.		
Number of trained professionals (a) (<i>Available Resources</i>): two per site suffice for delivery, but absences cannot be covered.	<i>Develop resource sharing agreements</i> : Develop partnerships with organisations that have resources needed to implement the innovation.	Establish a cross-site substitution pool among the cooperating sites; offer spare places in future training sessions for substitute staff.
Staff time resources (<i>Available Resources</i>): overall time required for delivery is substantial and integration into daily routine is unclear.	<i>Organise clinician implementation team meetings</i> : Develop and support teams of clinicians who are implementing the innovation and give them protected time to reflect on the	Agree protected time for delivery, preparation and documentation at each site, recorded in a binding plan that realistically integrates this workload into existing routines.

	implementation effort, share lessons learned, and support one another's learning.	
Deliverer availability (<i>Opportunity – Deliverers</i>): afternoon and evening delivery times may conflict with professionals' working hours.	<i>Revise professional roles</i> : Shift and revise roles among professionals who provide care, and redesign job characteristics.	Adjust working hours or responsibilities within the team so that afternoon/evening sessions are covered as part of regular schedules.
Language proficiency (<i>Capability – Recipients</i>): language barriers may limit parents' comprehension in the group setting.	<i>Develop educational materials</i> : Develop and format manuals, toolkits, and other supporting materials in ways that make it easier for stakeholders to learn about the innovation.	Provide linguistically simplified (everyday language, short sentences, no jargon) (b) and, where needed, translated parent materials ; prepare them in methodologically flexible formats (oral, visual, interactive exercises instead of written tasks) with selectable difficulty; involve professionals in reviewing materials for comprehensibility and systematically collect feedback on overload to adapt content continuously.
Educational background (<i>Capability – Recipients</i>): writing tasks and questionnaires may overwhelm clients with a lower educational background.		
Capacity for reflection (<i>Capability – Recipients</i>): meta-level reflection tasks are thought to overwhelm some clients.		
Complexity of the material (<i>Capability – Recipients</i>): doubts whether the clientele can manage the demanding programme content.		
Stigma (<i>Motivation – Recipients</i>): parents are thought to fear frightening or stigmatising their children by naming the illness explicitly.		Develop resource-oriented, destigmatising communication materials that promote the programme without foregrounding the parental illness; draw on evidence that increased knowledge and greater openness about parental mental illness within the family are experienced by children as relief from worry [50].
Single parenthood (<i>Opportunity – Recipients</i>): a missing second caregiver is thought to structurally impede continuous participation.	<i>Intervene with patients/consumers to enhance uptake and adherence</i> : Develop strategies with patients to encourage and problem solve around adherence.	Schedule sessions participatorily around enrolled families' availability; actively involve extended caregivers (e.g., grandparents, close friends) and provide childcare during sessions (for siblings who cannot participate); use
Lack of social support (<i>Opportunity – Recipients</i>): a		

missing supportive environment is assumed to deprive families of relief and encouragement.		the group itself as a support network (voluntary contact list, carpooling, exchange between sessions), complemented by an encouraging fixed contact person at the site; announce supports early, e.g., on flyers and in the initial family meeting.	
Family time availability (<i>Opportunity – Recipients</i>): fixed delivery times are assumed to be hard to reconcile with work, care obligations, and daily organisation.			
Illness-related attendance barriers (<i>Capability – Recipients</i>): acute depressive symptoms are assumed to impede regular attendance.			
Programme scope ((a) (<i>Innovation Complexity</i>): twelve sessions are perceived as organisationally demanding for sites and families.			
Commitment (<i>Motivation – Recipients</i>): families are thought to find it hard to commit to the full programme from the outset and to attend consistently.			
Perseverance (<i>Motivation – Recipients</i>): families are anticipated to struggle to persevere over the entire programme duration.		<i>Before the programme starts:</i> clarify expectations regarding scope and duration in the initial family meeting; offer families the option to attend the first sessions on a trial basis before committing to the full programme. <i>In the first sessions:</i> establish regular attendance as a group norm ; deliberately foster a positive group atmosphere . <i>During delivery:</i> maintain reminder and contact structures (b). <i>Note for sites:</i> In the research team's previous experience of delivering GuG-Auf, commitment and regular attendance have not proved problematic; communicating this may reduce anticipatory concerns.	
Strategies for long-term sustainability and wider adoption			
Staff training costs (<i>Innovation Cost</i>): the mandatory GuG-Auf training will incur a fee once the research project ends.	<i>Access new funding:</i> Access new or existing money to facilitate the implementation.		Secure external or third-party funding beyond the pilot phase for training costs and (partial) staff positions, so that implementation does not depend on strained provider budgets. Entry points: statutory health insurance prevention budgets (Sections 20, 20a SGB V; prevention guideline), which can fund the qualification of professionals within setting-based health promotion - targeted inquiries with health insurance funds; additionally explore foundation funding .
Funding training (<i>Available Resources</i>): sites have no budget for training costs; participation was possible only because training was free within the research project.			
Staffing capacity ((c) (<i>Available Resources</i>): only a single professional would			

have been available for delivery.		
Staff funding (c) (<i>Available Resources</i>): a fully project-funded post is named as a precondition for delivery.		
Economic viability (c) (<i>Local Conditions</i>): the programme is difficult to bill; the outpatient clinic is required to operate economically.	<i>Make billing easier:</i> Make it easier to bill for the clinical innovation.	Prepare the existing but complex billing pathways in practicable form (combination of relatives' sessions and billing from the <i>Zentrale Prüfstelle Prävention</i>) and pass them on as clear guidance to interested sites.
Programme outside the site's remit (c) (<i>Mission Alignment</i>): delivering a family-focused preventive group programme for children is not seen as part of the core remit in adult psychiatry.	<i>Conduct local consensus discussions:</i> Include local providers and other stakeholders in discussions that address whether the chosen problem is important and whether the innovation to address it is appropriate.	Discuss with clinicians and those responsible for the site's service portfolio how the needs of patients' children can be addressed across providers, and which forms of involvement short of delivery the site would consider feasible.
Setting fit (c) (<i>Compatibility</i>): an outpatient group programme is seen as a limited fit; linkage to inpatient care appears more coherent.	<i>Promote adaptability:</i> Identify the ways a clinical innovation can be tailored to meet local needs and clarify which elements of the innovation must be maintained to preserve fidelity.	Examine adaptation of the programme to other care settings (e.g., linkage to inpatient care) without altering core elements.
Talking about parenting (c) (<i>Motivation – Recipients</i>): parenting topics are assumed to feel very personal; a lack of control over what one's child shares may cause reluctance.		Provide more confidential formats for particularly sensitive parenting topics (small groups or individual conversations) complementing the group format; in the initial family meeting, actively normalise parenting difficulties as a common experience rather than an individual deficit.
Illness-related group participation (c) (<i>Capability – Recipients</i>): interactional challenges are assumed to make a group setting overwhelming for some patients.	<i>Distribute educational materials:</i> Distribute educational materials including guidelines, manuals, and toolkits in person, by mail, and/or electronically.	Communicate to sites that existing evidence does not indicate reduced effectiveness in families with higher levels of parental burden [10,11]; where a group format is nevertheless not feasible, establish stepped access via lower-threshold services within the clinic (e.g., child consultation hours) that can refer families to the programme at a later point.
Insufficient experience with children (c) (<i>Capability – Deliverers</i>): working with children lies outside the usual	<i>Conduct ongoing training:</i> Plan for and conduct training in the clinical innovation in an ongoing way.	Provide an additional training module on supporting patients with children in their parenting, enabling professionals without

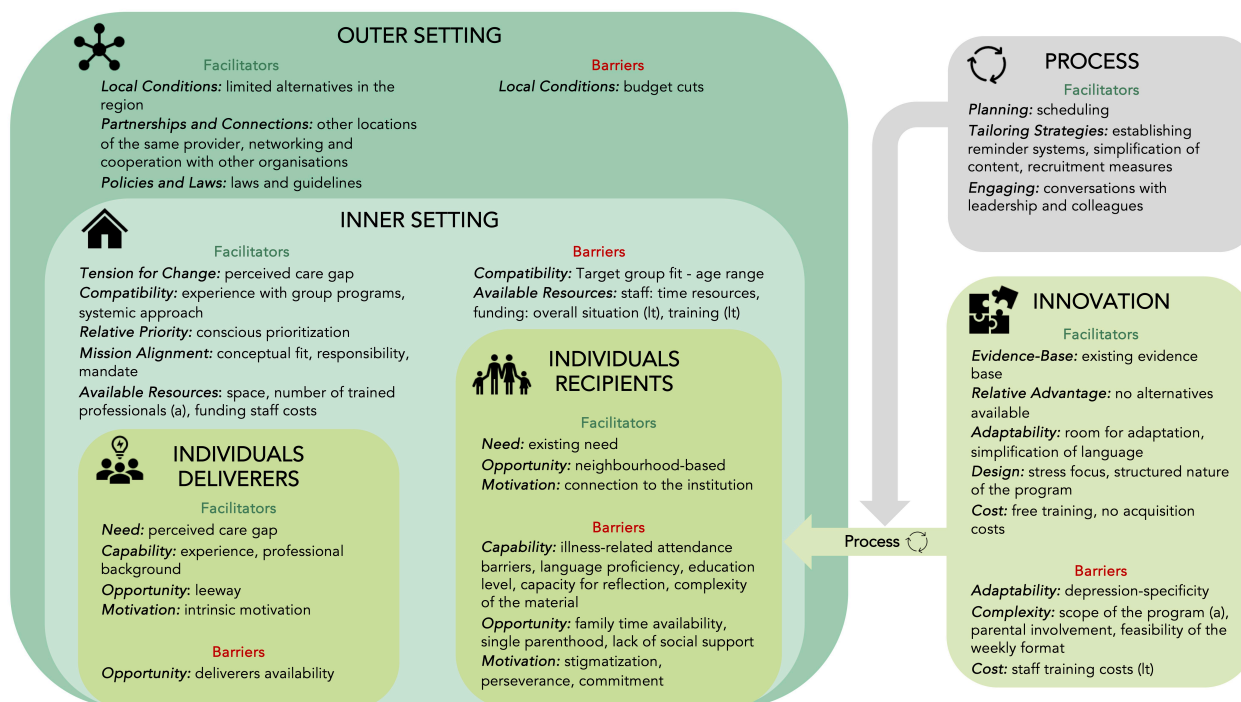
scope of adult psychiatry; professionals describe correspondingly insufficient experience in this area.		child-services experience to deliver the programme confidently.
Children in a psychiatric setting (c) (<i>Motivation – Recipients</i>): parents are thought to be reluctant to bring their children into a psychiatric setting.	<i>Change service sites</i> : Change the location of clinical service sites to increase access.	Locate the programme at a neutral, non-inpatient site while keeping it accessible during inpatient treatment; complement with active destigmatisation by treating clinicians.
Group setting (c) (<i>Motivation – Recipients</i>): parents are assumed to hesitate to have their children join a group with unknown, possibly more severely affected patients.	<i>Intervene with patients/consumers to enhance uptake and adherence</i> : Develop strategies with patients to encourage and problem solve around adherence.	Use the initial family meeting to address reservations about the group format: inform families about the composition of the group , emphasising that participating families share a comparable situation and that shared experience is a core element of the programme; where uncertainty remains, refer to the option of trial participation in the first sessions (see above).
Treatment fatigue (c) (<i>Motivation – Recipients</i>): some clients are described as therapy- or group-fatigued.		Position the programme distinctly from treatment : help patients to recognise the uniqueness of the child- and parenting-focused programme such that it is not perceived as an additional therapeutic intervention; offer the programme regularly so that families can join at a point when capacity permits.
Strategies beyond the scope of the project		
Budget cuts (c) (<i>Local Conditions</i>): austerity measures by public, municipal, and church funding bodies were reported by both participating and non-participating sites; they tie up leadership capacity and resources needed for implementation.	<i>Fund and contract for the clinical innovation</i> : Governments and other payers of services issue requests for proposals to deliver the innovation, use contracting processes to motivate providers to deliver the clinical innovation, and develop new funding formulas that make it more likely that providers will deliver the innovation.	The strategy is addressed to funding bodies rather than to the implementation team and therefore lies outside the project's mandate. Within the project, only the implementation-relevant consequences are addressable: training costs and staff positions through <i>Access new funding</i> (see above), though with uncertain prospects under current budgetary conditions. Beyond the project level, sustainable delivery would require advocacy for stable funding of preventive services for children of parents with mental illness, e.g., through

Overall funding situation
(Available Resources): site budgets are very limited; no capacity to finance additional activities beyond core tasks.

professional associations and health policy channels.

(a) ambivalent finding (perceived as both facilitating and hindering); (b) proposed by the sites themselves; (c) barrier reported by non-participating sites. ERIC strategy definitions follow Powell et al. (2015). Barriers are derived from the coded interview data. Implementation strategies and their contextual specifications were proposed by the research team and have not been implemented or evaluated.

Figures



Adapted from Damschroder et al. (2022). (a) = ambivalent finding, perceived as both facilitating and hindering; (lt) = barrier relevant in the long term, beyond the current project period. Findings shown are based on interviews with participating sites (n = 5).

Figure 1

Barriers to and facilitators of GuG-Auf implementation at participating sites, structured by CFIR 2.0 domains (uploaded as an extra file)

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [Additionalfile4.xlsx](#)
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