Article

A System Innovation Perspective on the Potential for Scaling Up New Psychological Interventions for Refugees

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Abstract

In recent years, a range of brief protocolised psychological interventions like Problem Management Plus have been developed. Such "scalable psychological interventions" are meant to be delivered by nonspecialists which can greatly increase access to psychological therapies for people affected by adversity, including forced displacement. However, embedding new interventions into mainstream practices is challenging. Novel interventions can remain in the research phase for a long time or stop altogether, which minimises their intended impact and reach. In this conceptual paper we propose a "system innovation perspective" on scaling up new psychological interventions for refugees and argue that existing mental health systems often need to change to integrate new interventions in a sustainable way. We present a conceptual framework, which includes ideas on cycles of deepening (learning by doing), broadening (repeating and linking), and scaling up (embedding) and the multilevel and constellation perspective. This framework has been operationalised in our scalability research as part of the STRENGTHS study in which we increase our understanding of the opportunities for scaling up four new psychological interventions in eight countries hosting Syrian refugees, including in Europe (Germany, Netherlands, Sweden and Switzerland) and the Middle East (Egypt, Jordan, Turkey and Lebanon).

Keywords: mental health, Problem Management Plus (PM+) psychological interventions, refugees, scalability, system innovation perspective, theory

Key implications for practice

- Researchers and practitioners involved in implementing and evaluating scalable psychological interventions such as Problem Management Plus should consider the inclusion of scalability assessments to increase understanding about the potential for integrating such innovations into mainstream services.
- A system innovation perspective views scaling up as the integration of an innovation into mainstream practices and suggests that mental health systems commonly need to change in order to effectively adopt new interventions, allowing them to reach their desired impact at scale and in a sustainable way.
- An improved understanding of the scalability of novel psychological interventions, including the potential (systemic) barriers and facilitators for scaling up, will provide essential knowledge for those involved in decision-making, implementation and evaluation of the further scale up of such interventions.

Introduction

Limited financial resources and scarcity of qualified mental health professionals remain obstacles to meeting the growing global mental health burden. In order to increase coverage of mental health services, a range of *scalable*

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psychological interventions have been developed for use in communities affected by adversity (e.g. poverty, violence, humanitarian emergency, conflict and post-conflict; World Health Organization [WHO], 2019). Such communities are commonly at high risk of psychological suffering and struggle to access mental health and psychosocial support (MHPSS) services (WHO, 2019). These new psychological interventions are potentially highly *scalable* adaptations of existing evidence-based psychological treatments (WHO, 2010). They are adapted so that they can be delivered in a shorter timeframe through guided self-help or with the support of trained and supervised nonspecialists (Murray et al., 2019; WHO, 2019). This shifting of tasks from mental health professionals to nonspecialists and beneficiaries aims to increase access to psychological therapies by requiring less resources and specialist skills than traditional one-to-one therapy provided by a mental health professional (Bennett-Levy et al., 2010; Murray et al., 2019; WHO, 2019).

Problem Management Plus

Problem Management Plus (PM+) is an example of a scalable psychological intervention based on task-shifting. Initial results on the feasibility and effectiveness of scalable psychological interventions are promising. For example, definitive trials with individual forms of PM+ (one-to-one support) showed significant reductions in psychological distress within PM+ participants compared to those who received enhanced usual care after 3 months follow-up in Kenya and Pakistan (Bryant et al., 2017; Rahman et al., 2016). A group version of PM+ showed feasibility and acceptability in Nepal (Rahman et al., 2019) and significant reductions in anxiety and depressive symptoms at 3 months in Pakistan (Rahman et al., 2019). More research is being done in other contexts and for other populations, including for Syrian refugees in various high- and middle-income countries as part of the Syrian REfuGees MeNTal HealTH Care Systems (STRENGTHS) study.

STRENGTHS Study

The war in Syria has led to over 6 million refugees in the Middle East and Europe. The psychological wellbeing of Syrian refugees has been impacted by experiencing extreme stressors before, during and after their flight from Syria and facing obstacles for accessing MHPSS services in host countries (Hassan et al., 2015; Hendrickx et al., 2019; Kiselev et al., 2020; Quosh et al., 2013). Besides the effectiveness and cost-effectiveness of PM+, the STRENGTHS study also examines the scalability of PM+ and related interventions amongst Syrian refugees in some of Syria's neighbouring countries and European countries (Sijbrandij et al., 2017).

STRENGTHS will run from 2017–2022 and is a consortium of universities and nongovernmental organisations. It evaluates four novel psychological interventions in eight different countries: *PM+ individual* in The Netherlands (de Graaff et al., 2020a, b) and Switzerland (Kiselev et al., 2020), *PM+ group* in Jordan (Akhtar et al., 2020) and Turkey (Fuhr et al., 2019, 2020b; Uygun et al., 2020), *Early Adolescent Skills for Emotions* (EASE) in Lebanon (Brown et al., 2019) and *Step-by-Step* (SbS) in Germany, Sweden and Egypt (Burchert et al., 2019). Table 1 provides further details on these interventions.

Challenges of Scaling Up

The uptake of novel psychological interventions into mainstream practices, however, is challenging (Ibrahim et al., 2020; Murray et al., 2014). Previous studies on implementation and scaling up processes of health interventions (Bulthuis et al., 2020; Esponda et al., 2019; Milat et al., 2015; Wakida et al., 2018), including those that involve task-shifting and community-based approaches (Javadi et al., 2017; Kok et al., 2015; Palas et al., 2013; Patel et al., 2011; Scott et al., 2018; Thornicroft et al., 2010) have run into substantial barriers. Developing and fine-tuning the innovation and a mismatch between the innovation and the adopting organisation can delay diffusion of the new intervention (Rotmans & Loorbach, 2010). There may be resistance to change and various institutional barriers may need to be lifted (Broerse & Bunders, 2010; van der Ham et al., 2013). As a result, novelties can remain in the research phase for a prolonged period or stop altogether. These *scaling up* challenges may explain the "painfully slow" translation of knowledge about effective ways to prevent and treat mental health problems into routine practices and visible reductions in the global mental health burden (Patel et al., 2018). How can we prevent PM+ and similar novel interventions from falling into this implementation gap?

Scalability Evaluation

We believe a starting point is assessing the scalability of new interventions. A recent review highlighted the need for improved incorporation of scalability considerations alongside effectiveness trials (Zamboni et al., 2019). Assessing scalability can increase understanding of the "suitability" or "potential" for scaling up an evidence-based intervention (Milat et al., 2013, 2020; WHO & ExpandNet, 2011) and is perceived as an important part of the scaling up process (Kohl & Cooley, 2003; WHO & ExpandNet, 2010). Scaling up is the process of institutionalising a new intervention into existing systems (Chibanda, 2018; Eaton et al., 2018; Simmons & Shiffman, 2007; Ventevogel et al., 2011; Yamey, 2011), which is required for making its expansion sustainable (Simmons & Shiffman, 2007).

The scaling up of novel psychological interventions for Syrian refugees involves some level of integration into existing humanitarian and governmental MHPSS systems in STRENGTHS host countries. With the Syrian civil conflict ongoing since 2011, we can assume Syrian refugees will remain in their host countries for many more years, or even permanently. This means the MHPSS systems of host countries need to be able to cater for a large number of Syrian refugees for a prolonged period of time. Conflict-affected populations have a relatively high prevalence (22.1%) of common mental health disorders (depression, anxiety and posttraumatic stress disorder; Charlson et al., 2019). Refugees also experience barriers to accessing mental health

Table 1: *New Psychological Interventions Being Evaluated in STRENGTHS*

Intervention	Country	Main components
PM+ individual	Netherlands Switzerland	PM+ individual is a psychological intervention for adults impaired by distress in communities exposed to adversity. It aims to improve their management of psychological (e.g. stress, fear, feelings of helplessness) and practical problems (e.g. livelihood issues, interpersonal conflict) (WHO, 2016). It involves Problem Management (PM; also known as problem-solving counselling) Plus (+) selected behavioural strategies. The first of the five programme sessions (90 minutes each) involve psychoeducation, where clients learn about common reactions to adversity and the intervention rationale (Dawson et al., 2015). Four core strategies are being taught in the next four sessions: (i) managing stress, (ii) managing problems, (iii) "Get Going, Keep Doing" and (iv) strengthening social support (Dawson et al., 2015; WHO, 2016). PM+ is intended as a task-shifting approach and to be delivered by those with no previous mental health training (Dawson et al., 2015). The intervention introduces a new type of health worker, namely the "helper" (WHO, 2016). Helpers are expected to have completed at least high school (Dawson et al., 2015). After 10-day PM+ training, a helper delivers the intervention on a one-to-one basis with clients under weekly supervision of a mental health professional (WHO, 2016). A supervisor receives the same training as helpers plus an additional 2-day training in PM+ supervision, using a train-the-trainer model with Master trainers. Helpers and supervisors deliver the intervention by following PM+ manuals. Generic manuals are required to be culturally and locally adapted to the target group and local context (e.g. language, content, local idioms of distress and metaphors; WHO, 2016), which can be done through formative research prior to trial implementation (Dawson et al., 2015).
PM+ group	Jordan Turkey	The PM+ group intervention follows the same content and frequency of sessions as PM+ individual, although sessions are twice as long to accommodate group teaching, discussions and breaks (Dawson et al., 2015). The recommended ratio is at least one facilitator (i.e. helper) per eight participants (Dawson et al., 2015).
Step-by-Step (SbS)	Germany Sweden Egypt	A five-session eHealth intervention based on PM+ Individual, with a stronger focus on behavioural activation (Carswell et al., 2018). The intervention is web-based and provides illustrated educative narratives as well as interactive exercises. In addition to behavioural activation, SbS also teaches stress management techniques, positive self-talk exercises and the handling of personal warning signals. The intervention can be offered through weekly minimal guidance from e-helpers, or with contact on request or no guidance (Burchert et al., 2019; Carswell et al., 2018). Optional contact is being used in the STRENGTHS trials (Burchert et al., 2019).
Early Adolescent Skills for Emotions (EASE)	Lebanon	Related to PM+ is an intervention called EASE, which has been developed to reduce symptoms of depression, anxiety and distress in young adolescents (10–14 years of age). It can be delivered by trained nonspecialised providers and is delivered using a group format. EASE comprises even 90-minute group sessions for young adolescents, complemented by three 120-minute group sessions for their caregivers. Adolescent sessions include: (i) psychoeducation about adversity and emotional distress; (ii) stress reduction; (iii and iv) meaningful activities; (v and vi) problem management skills and (vii) relapse prevention. Caregiver sessions involve: (i) psychoeducation about child distress, (ii) positive parenting strategies and (iii) caregiver self-care and relapse prevention (Dawson et al., 2019).

services in host countries, such as: language, sociocultural, financial, lack of awareness, help-seeking behaviours, stigma and a mismatch between the local health system and perceived needs of refugees (Hendrickx et al., 2019; Kiselev et al., 2020; Satinsky et al., 2019). As a result, refugees commonly have high unmet MHPSS needs.

Novel interventions like PM+ that are provided in the native language of Syrians and through lay providers from Syria may be an acceptable and accessible option in addition to existing MHPSS services. Whether it is feasible to integrate a novel intervention in different settings in such a way that it improves access to MHPSS for Syrian refugees in the long run, however, is an important question which will be addressed in our research on the scalability of new psychological interventions like PM+. We believe a radical perspective on scaling up is required to more fully understand its challenges and the possible ways to overcome them.

In this conceptual paper we start by making a case for adopting a *system innovation perspective* on scaling up. This is followed by an explanation of our conceptual framework, including definitions of key concepts. Finally, we describe how we have operationalised and are applying our conceptual framework in ongoing scalability research as part of STRENGTHS.

The Case for a System Innovation Perspective

A growing number of frameworks are available on the scaling up and scalability of innovative evidence-based interventions (Milat et al., 2015, 2020; Tabak et al., 2012; Zamboni et al., 2019). There are many commonalities between frameworks, with most having similar theoretical origins in diffusion of innovation theory, knowledge transfer theory, organisational theory and political science

theory (Tabak et al., 2012; Zamboni et al., 2019). Previous frameworks have recommended enhancing compatibility of new interventions with prospective adopting delivery systems. Innovative interventions, however, are designed to solve problems in society and existing systems; thus their integration into mainstream services will by definition require some level of change in the old ways of thinking (culture), organising (structure) and doing (practices). For example, new interventions like PM+ that involve task-shifting will require system change from specialised to community-based providers, which would be in line with transformational shifts happening at the global level (Patel et al., 2018). And online interventions like SbS will involve a shift from face-to-face to online MHPSS, which builds upon the increasing use of digital technologies globally. In other words, as these innovations instigate system change they are likely to run into "systemic" barriers. For this reason we use the *system innovation perspective* as our overarching framework for examining scalability. This perspective recognises that commonly existing systems need changing to scale up an innovation in such a way that it achieves the positive long-term impact for which it was initially developed (Broerse & Grin, 2017, p. 286).

Theory of Change (ToC) maps, logic models and process evaluations frameworks can improve understanding of the causal assumptions underpinning a complex intervention or project and how its inputs may lead to certain long-term outcomes (De Silva et al., 2014; Moore et al., 2015). These rather linear models, however, can oversimplify the interactions between a novel health intervention and its context of implementation (i.e. existing systems). The system innovation perspective, on the other hand, embraces the complexity and uncertainty of this interaction. As is common in systems thinking, it perceives systems as open, complex, dynamic, interlinked, resistant to change, history and context dependent (Loorbach, 2010). While ToC maps and process evaluations can be used as part of research on scaling up potential (e.g. for developing a vision for system innovation), they should, in our view, not be the dominant lens for understanding the scaling up process. This is in line with previous calls on the need for complexity and systems thinking when studying the scaling up of health innovations (Atun, 2012; Greenhalgh & Popoutsi, 2018; Paina & Peters, 2012), including task-shifting for mental health (Javadi et al., 2017).

System innovation research is diverse and has been applied in different disciplines and sectors (Loorbach et al., 2017), including health systems (Broerse & Bunders, 2010; Broerse & Grin, 2017). While this research perspective has become increasingly global (Loorbach et al., 2017), to the best of our knowledge, it has not yet been used with regards to scaling up of MHPSS for refugees. Adopting a system innovation lens may offer new and useful insights about the scalability of new interventions like PM+, including the possible barriers to scaling up and ways to address them, and how to implement new interventions in such a way that they strengthen and transform local mental health systems in the long-term.

A System Innovation Perspective on Scaling Up

Scaling Up and Scalability

Based on the system innovation literature, we perceive *scaling up* as the process of embedding an innovation into existing delivery systems (Rotmans & Loorbach, 2010). We conceive *scalability* as the potential for such an integration. We define *innovation* according to Roger's diffusion of innovation theory as: "an idea, practice or object that is perceived to be new by an individual or unit of adoption" (Rogers, 2003, p. 12). Systems are a "nested phenomenon", meaning various subsystems could be identified within a system (van Raak, 2010, p. 57). For example, a mental health system may exist of a health and social system, and the health system can again comprise private, public and nongovernmental subsystems and so on.

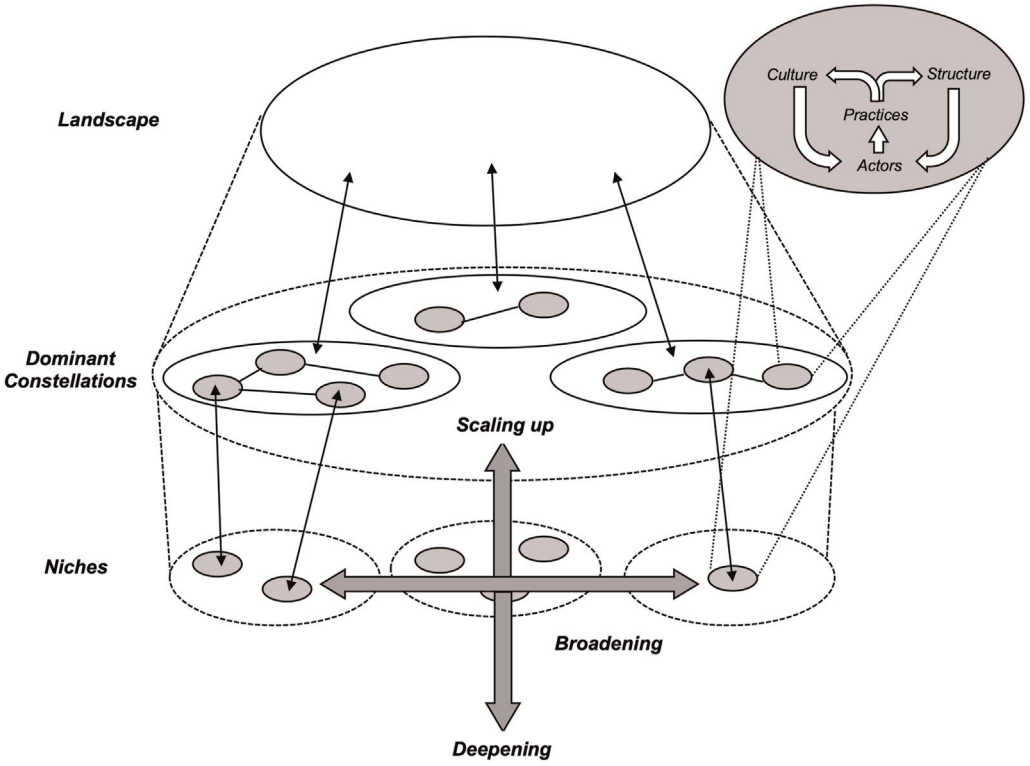
In the system innovation literature, various mechanisms are distinguished on how to move an experiment from the "protected" environment of the research level to the "real world" system level. Based on case studies from the healthcare sector, the steering mechanisms "deepening, broadening and scaling up" were proposed (van den Bosch, 2010; Van den Bosch & Rotmans, 2008). Our conceptual framework (Figure 1) combines the multilevel perspective (Geels, 2002), the constellation perspective (de Haan, 2010; van Raak, 2010) and the mechanisms broadening–deepening–scaling up (Van den Bosch & Rotmans, 2008).

Multilevel and Constellation Perspective

The multilevel perspective helps to understand the complex and dynamic relationships between the niche (experimental setting), regime (mainstream practices, culture and structure) and landscape (external context) level. Related to the multilevel perspective is the constellation perspective. The constellation perspective more elaborately describes the *regime* and relabels it the *dominant constellation*. In this article we use the latter term because this is more "neutral", particularly in the context of conflict-affected populations (i.e. "regime" has been used to describe authoritarian governments). The constellation concept elaborates on "structure, culture and practices" and highlights the role of "actors" within complex societal systems like health care (Loorbach et al., 2017).

The *landscape* level encompasses the broader societal trends and contexts of social change, such as demographics and cultural changes or other developments like "economic growth, wars, emigration, broad political coalitions" (Geels, 2002, p. 1260). Landscape changes are usually slow and may put pressure on the system (Geels, 2002). This external context is believed to be beyond the influence of system actors, at least in the short run (Rotmans & Loorbach, 2010, p. 24; van den Bosch & Rotmans, 2008). For this reason, previous research on system innovation in mental health care recommended to focus on the strategies for scaling up niche level experiments, whilst connecting these to broader landscape trends (van der Ham et al., 2013).

Figure 1: *System Innovation Perspective on Scaling Up New Psychological Interventions.*
Note. It combines the multilevel perspective (Geels, 2002), the constellation perspective (de Haan, 2010; van Raak, 2010) and mechanisms of broadening–deepening–scaling up (van den Bosch & Rotmans, 2008).



The *constellation* level involves the dominant set of structure, culture and practices of the existing social system (these set of elements are further explained below; de Haan, 2010). These elements "both define and fulfil a function in a larger social system in a specific way" (van Raak, 2010, p. 52). Complex systems, like the health system, could be perceived as having various subsystems (constellations); "each of which is concerned with a specific aspect of the health system's overall functioning" (van Raak & de Haan, 2017, p. 48). The mental health system could be seen as a constellation of the health system; with a focus on promoting and improving the emotional, psychological and social wellbeing of populations:

- *Culture* is described as the "set of values, perceptions and interpretive frames – relating to or relevant for the system – that are shared by most of the involved actors" (van Raak, 2010, p. 55). It involves the "ways of thinking, mental models and perceptions" (van der Ham et al., 2013, p. 127) or "how it is perceived" (de Haan, 2010, p. 41).
- *Structure* is defined as the "physical, economic, legal, financial, organisational and power structures that facilitate and/or constrain the behaviour of involved actors" (van Raak, 2010, p. 55). In other words, it refers to "how it works" (de Haan, 2010, p. 41) or "how people organise the things they do, either physically, institutionally or financially" (van der Ham et al., 2013, p. 127).
- *Practice* involves "actual actions (operations) undertaken within the constellations, which are relevant for the functioning of the constellation" (van Raak, 2010, p. 54). In short it is "what people actually do" (van der Ham et al., 2013, p. 127). Practice has also been described as the "result of the behaviour of actors" (van Raak, 2010, p. 54). Interactions between people and behaviour of actors will be numerous; analysis therefore focuses on practices that are "typical for the subsystem" (van Raak, 2010, p. 54), such as description of the care pathway (i.e. from patient formulation of complaint to release and final check-up; van Raak, 2010).
- *Actors* are defined as "individuals or organised groups that act as a unity" and are seen as related but not part of the system (van Raak, 2010, p. 55).

Structure and culture can be seen as structuring elements. They are different in nature but have the same role in the system. Both are "shaped by the practices in which actors engage" (the agency of actors) and may "limit what actors can or want to do in these practices" (van Raak, 2010, p. 53). The latter gives constellations stability – constellations are reproduced by actors – and thus lead to system resilience.

At the *niche* level, actors experiment with innovations in a protected space (Geels, 2002; Schot, 1998). Innovative experiments are generally "sheltered from mainstream competition" and may function as "proto-markets" for the development of market experiments, and eventually system shifts (Schot & Geels, 2008, p. 539). Experimental settings are important locations for learning processes and for building the social networks to support innovations (Geels, 2002). Niches emerge because actors feel that the current constellation is not able to satisfactorily solve a

problem or realise an opportunity that would fulfil the function of the system in a better way. For example, the current mental health system is not able to guarantee refugees access to care and thereby cannot fulfil its purpose of delivering quality healthcare to those in need. Hence, some actors feel the need to try out new practices, and these may require new cultures and structures.

System innovation theory suggests these three concepts (niche, constellation and landscape) are related through a nested hierarchy, with the dominant constellations embedded within landscapes and niches within the dominant constellations. Within the multilevel perspective there is no linear causality, meaning there is no simple cause and effect relationship for radical system change (Geels, 2002). A transition (i.e. change in the dominant culture, structure and practices) usually stretches over one or two generations (Rotmans et al., 2001) and can be influenced at three levels: top-down by larger sociopolitical trends, self-change within the system and bottom-up through the scaling up of innovative experimental solutions (van Raak, 2010). Alignment of trajectories within and between the levels will produce transitions, according to the multilevel perspective (Rotmans & Loorbach, 2010). Likewise "windows of opportunity" for transition can be created through tensions, which are understood as powerful changes in trajectories, or shifts in the landscape that put pressure on the constellation (Geels, 2002; Rotmans & Loorbach, 2010). This is when innovations can break out of the niche level and, over time, instigate change at the level of the dominant constellation and eventually landscape level.

Mechanisms: Deepening, Broadening, Scaling Up

However, the stability of dominant constellations prevents successful integration of innovations that entail a practice, culture and structure that is considerably different from mainstream practices, culture and structure. To facilitate this integration process van den Bosch & Rotmans (2008, p. 42) have developed three types of mechanisms:

- *deepening* involves learning processes which take place in a relatively protected space at local level;
- *broadening* entails linking and repeating experiments in different contexts and
- *scaling up* is the process in which innovative experiments become mainstream (Johansen & van den Bosch, 2017; van der Ham et al., 2013).

Broadening and scaling up are similar to "horizontal" (replication) and "vertical" scaling (institutionalisation) from the WHO/ExpandNet framework on scaling up health interventions (Simmons et al., 2007). Cycles of deepening, broadening and scaling up could be perceived as contributing to the integration of innovative experiments into mainstream services (van den Bosch & Rotmans, 2008, p. 42).

Scaling up has been identified as the most challenging of the three mechanisms (i.e. deepening, broadening and scaling up). Identifying the (systemic) barriers and facilitators is considered important for scaling up experiments in the system innovation literature (Johansen & van den Bosch, 2017; van den Bosch & Rotmans, 2008) and mental health literature alike (Eaton et al., 2011; Murray et al., 2014; WHO, 2008). Factors influencing scaling up may occur at landscape, constellation and niche level. Systemic *barriers* and *facilitators* are factors rooted in the dominant culture, structure and practice. Political will is an example of a systemic *influencing factor* for scale up, which may act as a barrier (if powerful actors lack political will) or a facilitator (if important actors have sufficient political will) depending on the circumstance.

Next Steps: Application of Our Conceptual Framework

The conceptual framework presented in this article is guiding our ongoing scalability research as part of the STRENGTHS study. Guiding research questions are: "How can new psychological interventions for refugees be integrated into existing MHPSS systems in such a way that they increase access to MHPSS for refugees in the long-term?" and "What are the potential barriers and facilitators (at multilevel and culture–structure–practice) of such an integration?" Answers to these questions will help us to provide recommendations on the next steps with regards to scaling up the brief psychological interventions being evaluated in each study site.

We have operationalised the above conceptual framework in the STRENGTHS study into three phases: (1) visioning – developing desired impact pathways, (2) systems analysis and (3) identification of (systemic) barriers and facilitators for scaling up. Each phase is described in more detail below.

Phase 1: Visioning – Developing Desired Impact Pathways

To develop desired impact pathways we organised ToC workshops in three STRENGTHS' countries (Turkey, Netherlands and Lebanon; Fuhr et al., 2020a,b). Key local actors were invited to participate in 1-day ToC workshops on scaling up. During these workshops ToC maps were developed, which outline the causal pathways through which PM+ and related interventions are expected to achieve their impact within the constraints of the systems. The cross-country ToC map outlined two interdependent causal pathways (policy and financing; health services) for scaling up new psychological interventions like PM+, including various intermediate and long-term outcomes as well as perceived interventions and assumptions for achieving these outcomes and its eventual impact (Fuhr et al., 2020a).

Phase 2: Systems Analysis

To gain insight into the current health system in the participating countries we conducted a desk study. The desk study consists of ongoing rapid appraisals of the mental health systems in the eight project countries of STRENGTHS. Its methodology is explained in detail

elsewhere (Fuhr et al., 2020c). In brief, the rapid appraisals involve desk-based reviews of available data and published literature on mental health system inputs (leadership, financing, facilities and services, medicines, health workforce and information) and process outcomes (care pathway, access and coverage, quality and safety), which are complemented by existing qualitative data collected by STRENGTHS partners as part of their formative work to support the cultural and local adaptation of the new interventions. These rapid appraisals aim to improve understanding of the current health systems in STRENGTHS countries and its responsiveness to the mental health needs of Syrian refugees. Preliminary results indicate that Syrian refugees experience various barriers in accessing MHPSS services in existing host systems, especially acceptability challenges (e.g. stigma, culture, language). Besides these appraisals, we conducted a systematic review on scaling up MHPSS interventions for refugees and other populations affected by humanitarian crises (Troup et al., 2021). In this review, we found limited evidence on the scaling up of MHPSS interventions for populations affected by crisis. Existing scaling up efforts focused on expansion rather than integration of new interventions and reported many barriers to scaling up, particularly with regards to health sector capacity (Troup et al., 2021).

Phase 3: Identification of (Systemic) Barriers and Facilitators

Experienced and anticipated (systemic) barriers and facilitators are identified through the desk study (see above) as well as interviews with relevant stakeholders. In-depth primary qualitative data are being collected through semi-structured interviews in the STRENGTHS study countries with purposively selected key informants (researchers, implementers, policy makers), MHPSS providers (including PM+ supervisors and helpers), Syrian refugees receiving the new interventions and if feasible their family members. In these interviews we explore perceptions of local and national actors on the possible (systemic) barriers and facilitators for integrating new psychological interventions in existing systems, including the roles of various organisations and individuals in the integration process. Table 2 gives an overview of some of the topics that are being explored in semi-structured interviews, including how they link to the conceptual framework.

Topic guides slightly vary depending on the type of psychological intervention being tested (PM+ individual, PM+ group, EASE and SbS; Table 1), country and background of interviewee and are, where possible, integrated into the process evaluations of the clinical trials to avoid duplication and increase efficiency. Semi-structured interviews will be analysed thematically in two stages. The first stage will be an inductive analysis, coding the data based upon emerging themes. The second stage will be to deductively organise the identified data themes in relation to the key elements of the conceptual framework. Results from these semi-structured interviews will be triangulated with findings from the desk research and ToC workshops.

Within STRENGTHS there are various teams with specific tasks. Several teams consist of clinical trial and intervention specialists, which are shaping the new practices and doing the day-to-day management (including troubleshooting) of the clinical trials. Other teams involve system innovation specialists who are monitoring the structure and culture implications of the new practice and its relation with the dominant constellation, as well as identifying issues related to broadening and scaling up and developing strategies to overcome such issues. As there is variation between the four psychological interventions being tested as part of STRENGTHS (Table 1) and there are differences between the eight study sites (including high- and middle-income countries in Europe and the Middle East) we anticipate the scaling up potential to vary across intervention type and site. This variation may aid in our reflection on the notion of scalability in the context of novel psychological interventions for refugees at the end of our scalability research.

Potential limitations

Potential limitations of applying the framework are mainly challenges of a conceptual analytic nature due to the complexity of the subject of study: systems. Firstly, challenges may be faced in demarcating the system when conducting a system analysis. Systems are made up of subsystems and interact with other systems. It is therefore complicated to set boundaries and to determine which actors and which interactions and interdependencies are part of the system.

Another analytic complexity is in characterising interventions as systemic innovations. Systemic innovations comprise a mix of coherent, innovative and interrelated actions that, together, may move society to a tipping point, beyond which a more desirable constellation is realised, one that is better able to fulfil the purpose of the system. In this sense, systemic innovations can be thought of as "game changers" – or as triggers of radical changes within the dominant culture, structure and practice of the system (Avelino et al., 2019). Many interventions tend to be merely system optimisers, unable to transform culture, structure and practice significantly. It is complicated to select the appropriate mix of coherent, innovative and interrelated actions. This requires reflexive learning and action research cycles, analysing systems dynamics and adapting actions accordingly. However, such an approach does not fit easily with the more structured experimental settings preferred in health sciences to attain disciplinary scientific standards (such as randomised controlled trials and quasi-experiments).

Furthermore, in the relatively short timeframe of most projects (4 to 5 years), it is difficult to measure systemic impact. Systemic change is a long-term process typically spanning at least one but usually more decades. It is quite complex to formulate impact indicators that prove you are heading towards system transformation. The often-used validated questionnaires are insufficient. It requires a co-creation process to develop a tailor-made monitoring and evaluation framework.

Table 2: *Topics Being Explored as Part of Semi-Structured Interviews Using PM+ as Example*

Mechanism/level	Description	Topics
Deepening and broadening at niche level	Learning from experimentation with PM+ interventions in a specific context (deepening) and linking it to similar initiatives and other contexts (broadening)	• Deepening: views on the need for PM+; systemic problems being addressed by PM+; vision for scaling up; rationale behind improvements and adaptations of PM+; challenges experienced during experimentation and how they were dealt with; views on how PM+ compares to existing mental health services • Broadening: knowledge of similar experiments/ initiatives (e.g. task-shifting approaches); views on suitability of various PM+ modalities (online, group, face-to-face) in a specific context; suitability of PM+ for other target groups beyond the experimental group (e.g. adults, adolescents, other refugees/migrant groups, general population)
Scaling up at niche-constellation level	How PM+ innovations can be sustainably embedded into existing (sub)systems in a specific context, including the possible factors influencing the scaling up process	• Culture: perceptions on how we can ensure that stigma surrounding mental health and help seeking will not be a major obstacle during scale up; how we can ensure that nonprofessional providers will be accepted by other health professionals; views on whether there is sufficient need/demand for PM+; ideas on how can we best reach the target group(s) • Structure: views on how to ensure sufficient and sustainable human and financial resources to scale up PM+; perceptions on whether the financial and legal system allows nonprofessional providers to provide PM+, receive (financial) incentives, be formally recognised for their services; how to ensure physical access to PM+ for all potential users (e.g. time/costs, acceptable, any differences rural/urban and men/ women); whether there is sufficient political will in the country to scale up PM+ • Practice: perceptions on how PM+ can be made part of existing care and referral pathways (e.g. stepped-care) and programmes for refugees; how can quality and safety of PM+ be ensured (e.g. continued training and supervision); how to prevent PM+ being a burden (emotional/time/financial) to helpers and supervisors
Sociocultural, political and economic trends at landscape level	Broader societal trends and contexts of scaling up innovations	• Perceptions on wider trends that may positively or negatively influence the scaling up of PM+ such as political developments, refugee integration policies (work, education), economic developments, sociocultural climate (acceptance of refugees), pandemics like COVID-19

PM+, Problem Management Plus.

Conclusion

Establishing evidence on the effectiveness of new psychological interventions will not automatically lead to their uptake into mainstream practices. Scaling up can be challenging and slow, particularly due to systemic barriers. System innovation ideas on cycles of deepening (learning by doing), broadening (repeating and linking), and scaling up (embedding) and the multilevel and constellation perspective offers us an explanation on how new interventions like PM+ can potentially break into and improve access to MHPSS systems for larger groups of refugees. This may implicate that "old" ways of organising, thinking and doing need to be exchanged by "new" ones. Attention for refugee mental health has the potential to lead to structural changes in mental health care delivery if, from the onset, implementation of novel interventions is geared towards integration in existing systems. System innovation may not just be beneficial to refugees but also to their host communities. An improved understanding about the scalability (i.e. potential for scaling up) of novel psychological interventions will provide essential knowledge for the next steps in scaling up such interventions. We encourage other MHPSS researchers and practitioners to contribute to this effort of generating knowledge about the scalability of novel psychological interventions and the usefulness of theoretical approaches like the system innovation perspective.

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Conflicts of interest

There are no conflicts of interest.

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