Scaling up alcohol prevention in primary health care

SUMMARY

In Latin America and the Caribbean region, alcohol use is one of the largest risk factors for ill health. Alcohol consumption has been shown to have a detrimental effect on a range of health-related outcomes, and is projected to increase further in middle-income countries in the coming decades. One of the approaches to reduce alcohol consumption is scaling up alcohol screening and brief interventions in primary care. SCALA (Scaling up risky alcohol use prevention and management and dealing with comorbid depression in primary health care, www.scalaproject.eu) was a Horizon 2020-funded quasi-experimental implementation study comparing different implementation strategies aimed at increasing alcohol screening and brief interventions among primary care providers from three Latin American countries: Colombia, Mexico, and Peru. This thesis is based on data from the process evaluation conducted within the SCALA study, guided by the UK Medical Research Council's process evaluation framework. The research in this thesis evaluated stakeholders' perceptions of the appropriateness of the intervention and key barriers, presented the development of a process evaluation plan and identified factors influencing the implementation of alcohol screening in primary care practice in Colombia, Mexico, and Peru by integrating the process evaluation findings with the outcome. **Chapter 1** elaborates on the rationale behind the research and introduces the project and the key research questions.

In the *first part* of the thesis, the work done before the start of the SCALA study implementation period is presented: the assessment of key stakeholder perceptions before the start of the project, as well as the process evaluation protocol developed in parallel. **Chapter 2** describes the results of a survey disseminated among 55 key stakeholders with experience in alcohol screening and/or primary care setting (both health professionals and other roles, e.g. regional health administrators and national experts). The key aim of the survey was to assess perceptions of the appropriateness of alcohol screening and brief advice and the perceived barriers to its implementation in primary healthcare settings. The results indicated that alcohol screening and brief advice was seen as an appropriate approach to reduce heavy alcohol use in primary health care and a range of providers were considered suitable for its delivery, such as general practitioners, nurses, psychologists and social workers. The perception of stakeholders from the three countries differed on only two of the twenty-one barriers: clarity of guidelines on screening and brief advice (in Peru less clear than in Mexico), and lack of screening instruments (in Peru lacking more than in Colombia and Mexico). The other results were generally congruent between the three countries, with contextual factors such as patients' normalised perception of their heavy drinking, lack of ongoing support for providers, difficulty in accessing referral services, and lenient alcohol control laws being the highest rated barriers. Intervention-related factors such as lack of feasibility or cultural fit were not perceived as major barriers. Barriers related to health professionals' characteristics were neither among the highest nor the lowest rated barriers, this assessment differed by the professional role of the responder. Factors such as lack of skills, lack of responsibility

and beliefs about the intervention not helping the patients were considered much less of a barrier by the general practitioners compared to psychologists or other occupations.

In **Chapter 3,** the aims and the design of the SCALA process evaluation are presented. Given the complexity of both the intervention and the multi-country implementation context, a mixed-methods process evaluation plan was developed based on the UK Medical Research Council guidance to aid the interpretation of results, with the main aims of identifying a) how were different components of the SCALA package implemented; b) the mechanisms of the impact that influenced the outcome c) characteristics of the context that influenced implementation and outcomes and d) common drivers of successful outcome across the three countries. The mixed-methods evaluation was designed to use a range of data collection methods: questionnaires, interviews, observations, logbooks and document analysis over the 18-month implementation period.

In the *second part* of the thesis, the findings of the evaluation of the SCALA study are presented. The SCALA study (including process evaluation) was initially planned to run for the 18-month-long implementation period. The start of the COVID-19 pandemic in March 2020 (which was the 6th-7th month of the implementation, depending on the centre) led to uncertainty in the ability to continue with the study, as the three countries were hit hard by the pandemic and the healthcare priorities (including in the primary care) were redirected towards dealing with the pandemic. The SCALA consortium prepared a 5-month outcome paper with the available data, looking at the effect of the implementation strategies during the first five months of the implementation period. Chapters 4 and 5 are thus accompanying this outcome paper and take into consideration the interim outcomes in terms of provider screening. Chapter 6 includes data from the entire implementation period, as the study was able to restart later in 2020/2021, and describes the impact of COVID-19 on the study.

The interim 5-month outcome results from the SCALA study, looking at the impact of training and community support on alcohol screening, demonstrated that training primary health care providers was an effective implementation strategy to increase alcohol screening in Colombia, Mexico and Peru, but did not show evidence of superior performance for the standard compared to the shorter training arm. **Chapter 4** examined the relationship of provider demographics – age, gender, occupation, and the training-related variables (dose, arm, participant response) with outcome data on whether the providers did any screening in the 5-month period. Training reach was high, with 352 providers (72.3% of all eligible) participating in one or more training or booster sessions. On average across arms, providers in Colombia spent 2.7 hours in training, in Mexico 2.2 hours and in Peru 3.1 hours. The country differences in the offered session length reflected adaptation to previous topic knowledge and experience of the providers. Among the participating providers, we compared the providers screening at least once during the implementation period ("screeners", N=173, 49.1% of the sample) with providers not doing any alcohol screening ("non-screeners", N=179, 50.9% of the sample). The

screeners spent more time in training compared to non-screeners, both in terms of hours and sessions, but the providers receiving the standard training were not more likely to screen than providers in the short training arms. Although the participants were satisfied with the training sessions, satisfaction with training and perceived utility for practice did not differ between screeners and non-screeners (except for the overall satisfaction with the training in Peru). Profession, but not age or gender, was associated with screening: in Colombia and Mexico, both doctors and psychologists were more likely to screen (although the latter represented only a small proportion of the sample) and in Peru, only psychologists.

Chapter 5 investigated the motivational factors (role security, therapeutic commitment, self-efficacy) and organizational context (leadership, work culture, resources, monitoring, community engagement) at baseline as the factors potentially associated with the proportion of adult patients screened during the 5-month implementation period. Data from the questionnaires completed by 386 of the participating providers at the start of the study was integrated with the data on their screening practice, and interactions by country and by the intervention arm were considered. The analysis found an inverse relationship of role security with the proportion of screened patients. Self-efficacy was associated with an increase in the proportion of screened patients, but only amongst Mexican providers. Support from leadership (formal leader in the organization) was the only significant organizational context factor, but only in non-control arms. Other factors were not found to be significantly related. This study also found that there were significant differences between countries on average scores for all the predictors, suggesting contextual differences: the Mexican providers had the highest role security, self-efficacy, leadership support, resources, monitoring and community engagement scores, and Peruvian providers had the highest means on the therapeutic commitment and work culture scales.

Chapter 6 analysed the providers' screening practice throughout the whole implementation period and aimed to more systematically appraise the country and policy context in the three countries, and consider to what extent those factors can explain the differences in the country outcomes. The results revealed that the comparatively overall high number of patients screened in Colombia and Mexico can be partially explained by the prioritisation of primary care and consideration of alcohol as a public health issue. The comparatively higher number of screening providers and baseline screening in Mexico could be explained by the existing official normative of having to include information about alcohol use in the patient history. The comparatively overall lower number of screenings and screening providers in Peru could be explained by the political instability of the regional health authorities, lack of focus on strengthening primary care, alcohol being seen as an addiction rather than a public health issue, and COVID-19 impact on healthcare. Time-bound factors affecting the outcome were national and regional governmental elections leading to the project champion having to depart from her influential position, as well as the expiration of many providers' contracts at the

end of each year in Colombia, and the introduction of a new health insurance scheme in Mexico. External events such as the COVID-19 pandemic (in all three countries), a measles outbreak in Mexico and anti-governmental protests in Colombia were also reflected in the decreased number of screenings. Overall, policy factors such as policy emphasis on primary care, framing alcohol use as a public health issue and existing screening practice were facilitating the implementation of alcohol screening on a larger scale. In case of this study, political factors (leadership changes due to elections or political instability) and external shocks (including the COVID-19 pandemic) impeded alcohol screening implementation.

Chapter 7 brings all the results together and situates them in relation to each other and other literature. In summary, the key results show that the factors related to training (dose received), individual (professional role, self-efficacy), organizational level (leadership support), and wider environment (existing practice, alcohol and primary care policy priorities) influenced the screening practice of the professionals. The role-play-oriented training for the providers was a necessary first step to provide them with the skills needed to initiate conversations about alcohol in primary care. Still, in practice, only half of the providers screened any patient, and a small proportion of all providers screened most of the patients. The three countries differed how the constellations of the identified factors related to the provider screening behaviour. Overall, however, the policy or organizational-level factors seemed to influence the ultimate patient coverage to a larger extent than the individual motivational factors. Thus, in order to scale up alcohol screening and increase patient coverage, future efforts should combine skills-based training, tailored to the local setting and focusing on the individual capacity building, with action focused on community, organizational and policy levels.