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A Qualitative Assessment of the Context and Enabling Environment for the Control of *Taenia solium* Infections in Endemic Settings

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Abstract

Background

Taenia solium is a zoonotic helminth causing three diseases namely, taeniasis (in humans), neurocysticercosis (NCC, in humans) and porcine cysticercosis (PCC, in pigs) and is one of the major foodborne diseases by burden. The success or failure of control options against this parasite in terms of reduced prevalence or incidence of the diseases may be attributed to the contextual factors which underpin the design, implementation, and evaluation of control programmes.

Methodology

The study used a mixed method approach combining systematic literature review (SLR) and key informant interviews (KII). The SLR focused on studies which implemented *T. solium* control programmes and was used to identify the contextual factors and enabling environment relevant to successful inception, planning and implementation of the interventions. The SLR used a protocol pre-registered at the International prospective register of systematic reviews (PROSPERO) number CRD42019138107 and followed PRISMA guidelines on reporting of SLR. To further highlight the importance and interlinkage of these contextual factors, KII were conducted with researchers / implementers of the studies included in the SLR.

Results

The SLR identified 41 publications that had considerations of the contextual factors. They were grouped into efficacy (10), effectiveness (28) and scale up or implementation (3) research studies. The identified contextual factors included epidemiological, socio-economic, cultural, geographical and environmental, service and organisational, historical and financial factors. The enabling environment was mainly defined by policy and strategies supporting *T. solium* control.

Conclusion / Significance

Failure to consider the contextual factors operating in target study sites was shown to later present challenges in project implementation and evaluation that negatively affected expected outcomes. This study highlights the importance of fully considering the various domains of the context and integrating these explicitly into the plan for implementation and evaluation of control programmes. Explicit reporting of these aspects in the resultant publication is also important to guide future work. The contextual factors highlighted in

this study may be useful to guide future research and scale up of disease control programmes and demonstrates the importance of close multi-sectoral collaboration in a One Health approach.

Keywords: Contextual factors, enabling environment, *Taenia solium*