Mapping and optimising infection prevention and control in long-term and primary care

Impact

Adequate implementation of infection prevention and control (IPC) in healthcare settings is crucial to safeguard both patients and healthcare workers against the onset and transmission of infectious diseases and antimicrobial resistant microorganisms. In this thesis, we aimed to examine the status of IPC in long-term and primary care, and identify factors influencing its implementation.

The findings of this thesis contribute to both scientific understanding and practical implications addressing IPC challenges in various care sectors in long-term and primary care. By assessing the status of IPC along with areas for improvement, and identifying barriers and facilitators to IPC implementation, our research provides a roadmap for developing strategies tailored to the unique needs of the individual care sectors. Understanding the factors influencing IPC implementation equips healthcare facilities with tangible actions and objectifiable targets to enhance IPC practices. In addition, the emphasis on integrating IPC into organisational quality improvement cycles and higher-level policy frameworks indicates its broader relevance in enhancing healthcare quality and promoting patient safety in long-term and primary care.

Our research provides valuable insights for healthcare professionals, healthcare managers, policymakers, intervention developers, and researchers. The insights from this thesis provide healthcare professionals and managers with actionable recommendations to optimise IPC practices within their respective care settings. Policymakers can use our findings to inform policy development and regulatory frameworks (e.g., IPC guidelines), while intervention developers and researchers can leverage our results to develop – or refine existing – interventions to improve IPC in currently (often) overlooked care sectors in long-term and primary care.

This thesis advocates for a systems perspective on IPC improvement, recognising the multilevel factors influencing its implementation and the necessity of adopting a multifaceted approach – addressing behavioural change at the individual (professional) level, organisational change, and policy frameworks. Additionally, it highlights the importance of context-sensitive approaches tailored to different care settings to enhance IPC success.

In our research endeavours, we have strived not only to develop knowledge but also to disseminate it. Moreover, we build upon existing partnerships and networks, thereby fostering interdisciplinary collaboration. Our research initiatives were aimed

at knowledge development, facilitating knowledge sharing, and promoting knowledge exchange.

Knowledge development. It is important to regularly evaluate the status of IPC in healthcare settings ('meten is weten'). This is underscored by a recent communication of the Dutch Minister of Health to the House of Representatives in October 2023. In this communication, the Minister emphasised the critical need to enhance IPC in long-term care settings. In addition, the minister declared a mandate for long-term care facilities to regularly assess their IPC status starting in 2024, incorporating such evaluations into their ongoing quality improvement process. Assessing the status of IPC and its influencing factors provides important input for developing and implementing tailored and practical interventions aimed at improving and safeguarding IPC in different care sectors.

From the background of implementation science, we know that the development and implementation of improvement strategies and policies will be more effective and sustainable if input from the target population is taken into account. Therefore, we actively involved the target population (in our case healthcare professionals) in different stages of our research processes – including study design (co-design), data collection, and dissemination of findings – and incorporated their feedback. For instance, during the design of the study presented in Chapter 9 we jointly formulated hypotheses for our study with physicians specialised in elderly care during expert meetings. Moreover, healthcare professionals of the respective care sectors reviewed our study instruments (e.g., topic lists for interviews or questionnaires). The data collection process involved the target population as active participants, using methods such as interviews and questionnaires (based on qualitative findings) to capture their perspectives and experiences. In addition, we engaged healthcare professionals as co-authors in our studies. By engaging healthcare professionals from relevant care sectors and incorporating their valuable input, we presumably enhanced the applicability and practicality of our findings.

Knowledge sharing. To ensure the uptake and utilisation of research findings, proactive dissemination of findings with the target audience is important. The design and dissemination of factsheets – presenting key findings and actionable recommendations – was important to try to bridge the gap between research and practical application. In addition, we presented our findings at scientific conferences and participated in events organised by the Infection Prevention (IP) & AMR Care Network Limburg, such as the webinar in the week of hand hygiene and the inspiration day for disability care, where we presented and discussed our findings with healthcare professionals and other professionals interested in improving IPC. Additionally, our findings were shared with other experts in the field who aim to enhance IPC. For instance, our interview findings in general practices were shared with an infection prevention and control professional and served as input for revising existing (NHG) guidelines.

Healthcare facilities participating in our questionnaire study were provided with reports on facility-specific IPC challenges and recommendations on how to enhance IPC within their organisations (see example of an anonymised facility-specific report in the Appendix). This facility-specific feedback helps improve the IPC climate, keeps the subject on the agenda, and provides feedback that is specifically based on the local improvement opportunities within the facilities.

Knowledge exchange. Building upon existing partnerships and networks of the South Limburg Public Health Service (GGD Zuid-Limburg), we contributed to interdisciplinary collaboration in our research endeavours by bringing together stakeholders from diverse domains – including infection control, microbiology, epidemiology, and health promotion. This interdisciplinary collaboration facilitates the exchange of ideas, expertise, and best practices. The integration of the NIEZT project into the programme of the IP & AMR Care Network Limburg further solidified the partnership between the South Limburg Public Health Service and the IP & AMR Care Network Limburg, ensuring sustained collaboration and knowledge exchange. As part of our collaboration with the IP & AMR Care Network Limburg, we drafted and provided overarching (feedback) reports on the status of IPC and its influencing factors for the individual care sectors. This presents the IP & AMR Care Network Limburg the opportunity to monitor IPC statuses and prioritise actions regarding IPC in various healthcare sectors.

This doctoral thesis was established within the Living Lab Public Health Mosa (Academische Werkplaats Publieke Gezondheid Mosa). This living lab is committed to bridging the gap between research, policy, and practice within the public health domain.