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The impact of COVID-19 on antimicrobial stewardship implementation in UAE hospitals: An exploration informed by the Consolidated Framework for Implementation Research (CFIR)

Introduction

Despite numerous published studies about antimicrobial stewardship programme (ASP) implementation, a lack of theoretical underpinning within this research emerges.¹ This leads to incomplete knowledge of contextual determinants impacting ASP implementation.

Aims

The aim of this study was to use Consolidated framework for Implementation research (CFIR)² to explore key stakeholders' perspective regarding ASP implementation in United Arab Emirates (UAE) hospitals with a focus on facilitators and barriers.

Methodology

Research tool: Semi-structured online interviews. July 2020 – December 2020. Approximately 45 – 60 minutes

Interview schedule: Informed by CFIR and literature review.

Participants: ASP team members and other healthcare practitioners dealing with antimicrobials in UAE hospitals.

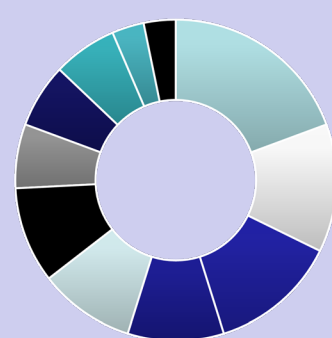
Recruitment: Purposeful followed by snowball sampling. Maximum variation of participants.

Data management: Audio recorded, transcribed verbatim and anonymised. Using NVIVO software

Data analysis: Independently analysed by two researchers

Results

A. Population (Figure 1)



- 6 Clinical pharmacist
- 3 ID physicians
- 2 Nephrologist
- 1 internist
- 4 pharmacist
- 3 ICU consultants
- 2 Microbiologist
- 1 GP physician
- 4 surgeons
- 3 Nurses
- 2 Quality officers

B. Hospitals' demographics (Figure 2)



C. Main themes identified with examples of supporting quotes (Table 1)

| Themes | Supporting quotes |
|---|---|
| Theme one: Increased complexity of ASP implementation and resulting changes in prescribing behaviour influenced by COVID-19. | "It halted everything, because we had to be pulled to cover the covid wards." [ID physician 1] |
| Theme two: Adaptations, networking and cosmopolitanism (external networking) to enhance integration of COVID-19 management in ASP services. | "Experience with ASP and having structure and having consultations and having meetings with different stakeholders really allowed us [to help in building national guidelines for COVID], a lot of the infectious disease people are clinical pharmacist and are actually quite solid." [Clinical pharmacist 2] |
| Theme three: Adaptations and networking to support continuity of ASP implementation process | "For us as an ASP member in our facility, we provide a daily feedback for the doctor, especially in the Critical care area regarding the treatment plan of covid patients, so it was a huge challenge at the initial phase of covid, but now start to be stabilized and improved." [Clinical pharmacist 6] |

Conclusion and Recommendations

Despite the initial disruption of ASP implementation during the peak of the pandemic, the subsequent successful integration of ASP infrastructure, process and personnel to contribute to dealing with the pandemic reflects the high value and well established roles of ASP in UAE hospitals.

References

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- (2) Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. Implementation Science: IS. 2009; 4:50-50.