

Exploring the Challenges in Routine Healthcare Data Collection in Primary Care Settings: Oral Healthcare Personnel

SYIRAHANIZA MOHD SALLEH¹, MOHD ZULKARNAIN SINOR^{2*}, MOHD ZARAWI MAT NOR³, BADARIAH TAMBI CHEK⁴

¹ Perlis State Oral Health Division, Ministry of Health, Malaysia

² School of Dental Sciences, Universiti Sains Malaysia, Kelantan, Malaysia

³ School of Medical Sciences, Universiti Sains Malaysia, Kelantan, Malaysia

⁴ Oral Health Division, Kelantan State Health Department, Malaysia

*Corresponding Author: zulkarnainsinor@usm.my

ABSTRACT

Most oral healthcare data in the Ministry of Health were collected by primary oral healthcare clinics distributed nationwide. High-quality oral healthcare data is critical for programme monitoring, continuous assessment and reporting. However, the burden of data collection increases with increased demand for progress reporting due to new programmes and activities in the primary clinics. With the increment of workload, multiple challenges have arisen and potentially impact the quality of the data collected. As of today, no study has been conducted to understand these profound changes. This study intended to explore the challenges in routine healthcare data collection done by public oral healthcare personnel in Kelantan, Malaysia. This institution-based phenomenology study was conducted within the primary oral healthcare service in public oral health facilities. Eighty (80) oral healthcare personnel that include dentists, dental therapists, dental technicians and dental surgery assistants from four (4) districts in Kelantan (Kota Bharu, Pasir Putih, Tanah Merah and Jeli) were purposively invited to participate in the study. A specific focus group discussion (FGD) was developed based on the Interview Refinement Protocol Framework. Eight (8) focus group discussions (FGDs) and fifty-two (52) hours of researcher-participant observation were initiated to collect the desired data. The obtained data were then analysed using the thematic analysis assisted by ATLAS.ti software version 8.0. The themes and subthemes related to the challenges were identified using a combination of inductive and deductive coding techniques. In this study, a total of seventy-three (73) participants consented to participate. The result encompassed evidence across all groups of personnel. The process of collecting oral healthcare data is paper-based within each facility and further aggregated at the district and state level before submission through an online system or email. The data collected at primary care clinics were inclusive of routine clinical data from various patient target groups, data for programme monitoring and performance indicators and data collection based on ad-hoc data requests such as research data requests and administrative data. Three themes emerged from the data analysis. These were: (1) individual, personal or human challenges, (2) organisational challenges, and (3) technical challenges in data collection. Twelve sub-themes were grouped within the themes identified. The sub-themes from the human challenges were: (1) knowledge (2) understanding of the work process (3) personnel age (4) personnel attitude (5) work experience, and (6) interest. The organisational sub-themes were: (7) facilities (8) workload, and (9) human resources allocation. The last sub-themes generated from the data were the technical ones: (10) challenges during training (11) work process, and (12) computer skills. In conclusion, this study illustrates the complex challenges in routine health data collection experienced by the oral health personnel. The challenges should be taken into account as key factors for promoting changes, improvement in the data collection process or implementation of new data collection. This study provides evidence to the stakeholder on the challenges faced at the implementer level. Based on the evidence, policy adaptation or changes by the management can offer a long-lasting and effective solution to the challenges faced by the implementer.

Keywords: (MeSH): patient-generated health data, health personnel, data collection, focus groups