



This is a repository copy of *Effectiveness and safety of self-management interventions among adults with type 2 diabetes mellitus in sub-Saharan Africa: a systematic review and meta-analysis*.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/215297/>

Version: Published Version

---

**Proceedings Paper:**

Carter, N., Nalbant, G. [orcid.org/0000-0002-5414-9383](https://orcid.org/0000-0002-5414-9383), Chahal, P. et al. (1 more author) (2023) Effectiveness and safety of self-management interventions among adults with type 2 diabetes mellitus in sub-Saharan Africa: a systematic review and meta-analysis. In: Population Medicine. 17th World Congress on Public Health, 02-06 May 2023, Rome, Italy. E.U. European Publishing , p. 441.

<https://doi.org/10.18332/popmed/165186>

---

**Reuse**

This article is distributed under the terms of the Creative Commons Attribution-NonCommercial (CC BY-NC) licence. This licence allows you to remix, tweak, and build upon this work non-commercially, and any new works must also acknowledge the authors and be non-commercial. You don't have to license any derivative works on the same terms. More information and the full terms of the licence here: <https://creativecommons.org/licenses/>

**Takedown**

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing [eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk) including the URL of the record and the reason for the withdrawal request.



[eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk)  
<https://eprints.whiterose.ac.uk/>

system functionality.

Conclusions: Further research is required to investigate the changes that occurred in the level of trust in the healthcare system among different groups following the pandemic. These must also account for population-based interventions introduced by the healthcare system.

**Popul. Med. 2023;5(Supplement):A1529**

**DOI: 10.18332/popmed/165101**

### Assessment of women's autonomy towards oral care utilization and its association with cognizance, attitude, and oral hygiene practices in Sri Ganganagar, India

Manu Batra<sup>1</sup>

<sup>1</sup>Surendera Dental College & Research Institute, India

Background and Objective: Oral health, though an integral part of general health, yet it is accorded low priority and remains an issue of neglect. Gender disparity in Oral health-seeking behaviour and utilization of dental services have been observed, therefore understanding factors affecting among females is necessary. Women's autonomy which suggests the power to alter one's fate and environment, among other things may have a role in their dental health-care utilization in India. The objective of the study was to assess women's autonomy towards oral care utilization and its association with cognizance, attitude, and oral hygiene practices in Sri Ganganagar, India.

Methods: A cross-sectional study was conducted among 387 women aged 18 years or older who in Sri Ganganagar city, Rajasthan. Structured, pre-validated, and interviewer-guided questionnaires were used to assess women's autonomy, knowledge, attitude, oral hygiene practices, and dental care service utilization. Descriptive and inferential statistics were carried out.

Results: Out of total, 58.4 % of the women reported high level of autonomy, with more of urban than rural women. Out of these, 57.2% had high decision-making power at the household level and 51.4% had a high financial control and regular access to money. Women with a high level of autonomy had more cognizance, a more positive attitude, and better dental hygiene habits. Findings of logistic regression analysis revealed that women with high autonomy were 1.89 times more likely to utilize oral health services, whereas women with high knowledge were 1.17 times more likely and women with a positive attitude were 1.76 times more likely than those with a negative attitude to use oral health services.

Conclusions: Women's autonomy was found to influence along with knowledge, attitude, and oral hygiene practices the oral health-care service utilization.

**Popul. Med. 2023;5(Supplement):A1530**

**DOI: 10.18332/popmed/165121**

### Hysterectomy and thyroid cancer risk: a systematic review and meta-analysis

Irene Giacchetta<sup>1</sup>, Roberto Fabiani<sup>2</sup>, Patrizia Rosignoli<sup>2</sup>, Manuela Chiavarini<sup>3</sup>

<sup>1</sup>School of Specialization in Hygiene and Preventive Medicine, University of Perugia, Perugia, Italy, <sup>2</sup>Department of Chemistry, Biology and Biotechnology, University of Perugia, Perugia, Italy, <sup>3</sup>Department of Medicine and Surgery, University of Perugia, Perugia, Italy

Background: Incidence rates of thyroid cancer have increased considerably during the last two decades. Recent studies findings suggest that women who underwent a hysterectomy have an elevated relative risk of thyroid cancer. The aim of our review and meta-analysis is to summarize the evidence about the association between hysterectomy with or without oophorectomy and thyroid cancer risk.

Methods: PubMed, Web of Science, and Scopus database were searched for studies published up to May 2022. The PRISMA statement and MOOSE guidelines were followed. Data derived from selected studies were pooled using a random effects model. Heterogeneity was explored with chi-square-based Cochran's Q statistic and the I<sup>2</sup> statistic. Publication bias was assessed with Begg's and Egger's tests.

Results: Sixteen studies met the eligibility criteria. The pooled analysis showed a significantly 64% increment of thyroid cancer risk in association with any hysterectomy (OR 1.64, 95% CI 1.48–1.81; I<sup>2</sup> = 28.68%, p = 0.156). Hysterectomy without oophorectomy was a stronger predictor of risk than hysterectomy with oophorectomy. The pooled analysis of data regarding hysterectomy without oophorectomy showed a statistically significant increment of thyroid cancer risk by 59% (OR 1.59, 95% CI 1.43–1.77; I<sup>2</sup> = 31.32%, p = 0.178). Hysterectomy with oophorectomy was associated with an increase of thyroid cancer risk of 39% (OR 1.39, 95% CI 1.16–1.67; I<sup>2</sup> = 42.10%, p = 0.049). Significant publication bias was not detected.

Conclusions: Our findings might help with decision making around these surgeries. Additional research is needed to elucidate the biological mechanisms underlying this association.

**Popul. Med. 2023;5(Supplement):A1531**

**DOI: 10.18332/popmed/165168**

### Effectiveness and safety of self-management interventions among adults with type 2 diabetes mellitus in sub-Saharan Africa: a systematic review and meta-analysis

Naomi Carter<sup>1</sup>, Gamze Nalbant<sup>1</sup>, Prit Chahal<sup>2</sup>, Kaushik Chattopadhyay<sup>1</sup>

<sup>1</sup>Lifespan and Population Health, School of Medicine, University of Nottingham, United Kingdom, <sup>2</sup>Health Education East Midlands, United Kingdom

Background and Objective: There has been a rapid increase in the prevalence of type 2 diabetes (T2DM) in sub-Saharan Africa (SSA). Association with lifestyle factors make self-management strategies an integral part of managing T2DM, and these must be tailored to context. Several randomised controlled trials (RCTs) evaluating T2DM self-management interventions in SSA have been conducted. This systematic review therefore aimed to assess and synthesize evidence on the effectiveness and safety of self-management interventions among adults with T2DM in SSA.

Methods: The JBI systematic review methodology was followed. Several databases were searched for published and unpublished RCTs until 31st May 2021. The screening of titles and abstracts and full texts, data extraction and critical appraisal were conducted by two independent reviewers. Disagreements were resolved through Discussion or with a third reviewer. Data synthesis was conducted using narrative synthesis, followed by meta-analysis where feasible.

Results: Out of 1452 records identified, 16 and 12 studies were included in the systematic review and meta-analysis, respectively. Only 4 studies were assigned a 'yes' for more than half of the criteria in the standardised JBI critical appraisal tool for RCTs. Compared to usual care, self-management interventions did not reduce glycated haemoglobin (HbA1c) at 3 months. HbA1c was reduced at 6 months (490 participants, mean difference -6.45mmol/mol, 95% confidence intervals -9.98, -2.92), but not at 12 months. Three studies assessed health-related quality of life and one demonstrated an improvement (2762 participants). Three studies specifically reported no adverse events in relation to the trial interventions (1230 participants), whilst in the remainder this was not reported.

Conclusions: Self-management interventions for adults with T2DM in SSA appear to produce a clinically significant improvement in glycaemic control in the medium-term. Given the limitations of the available evidence and to strengthen the evidence base, high-quality RCTs should be conducted and reported.

**Popul. Med. 2023;5(Supplement):A1532**

**DOI: 10.18332/popmed/165186**

### Dental care during the COVID-19 pandemic at the São Gonçalo Unit of the Social Service of Commerce, Rio de Janeiro (Sesc-RJ)

Patrícia Neves<sup>1</sup>, Leila Franca<sup>1</sup>, Lígia Braganca<sup>1</sup>, Cláudia Coscarelli<sup>1</sup>

<sup>1</sup>Social Service of Commerce, Rio de Janeiro, Brazil

Background and Objective: The pandemic caused by the new coronavirus was decreed by the World Health Organization (WHO) on March 11, 2020. The Ministry of Health recommended maintaining only emergency dental care. In October 2020, a new ordinance guided the resumption of elective care. Dentistry at Sesc - RJ resumed services at the São Gonçalo Unit in July 2021. To report the experience of adapting the environment and training the oral health team at Sesc São Gonçalo - RJ, to carry out care safely for patients and professionals.

Methods: Biosafety training courses were held for the team and specific protocols were established for assistance during the pandemic.

Results: The care protocols were modified and, consequently, the number of patients was reduced. We have incorporated into our routine the measurement of the temperature of the team and patients, hand disinfection and the placement of a sanitizing mat at the entrance to the clinic. In addition to the PPE (personal protective equipment) already in use, such as a disposable cap, safety goggles, fabric lab coat and special shoes, we now use face shields, PFF2 or N95 masks, disposable lab coats and shoe covers, in the offices, the air conditioning remained off and the windows half-open. After the consultations, the surfaces were cleaned with quaternary ammonia.

Conclusions: Biosafety training and protocols established during the COVID-19 pandemic contributed to the safe resumption of care. Some changes proved to be positive and were maintained, such as extending the duration of consultations (which before the pandemic were 30 minutes, now to 1 hour) and the use of the N95 mask and face shield.

**Popul. Med. 2023;5(Supplement):A1533**

**DOI: 10.18332/popmed/165203**

### Consumption of energy drinks among Italian university students: a