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# Exploring Occupational Irritant Hand Dermatitis amongst healthcare workers in NHS Grampian



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## Background

Occupational Irritant Hand Dermatitis (OIHD) is emerging as an important risk caused by or made worse by work. OIHD can be responsible for significant and long-term health issues and can impact on the individual's employment. Healthcare workers are amongst the occupations with the highest incidence rates of OIHD (Gimenez-Arnau and Skudlik 2021).

## Methods

The three studies made a standalone contribution towards:

- understanding the prevalence and incidence of OIHD on a local and national level by conducting a retrospective review of the available databases,
- identifying, appraising and synthesising the best available evidence on the effectiveness of interventions to prevent OIHD by conducting a systematic review of the world-wide literature and
- collecting information on the distribution and determinants of OIHD in a sample of NHS Grampian HCWs by analysing and discussing their views, experiences and perceptions.

## Aims

The principle aim of this Doctoral research study was to explore OIHD amongst healthcare workers (HCWs) in NHS Grampian, Scotland. In order to provide a broad overview of the subject matter, this research used a three-study approach to explore, appraise and assess OIHD amongst HCWs.

## Methodology

<b>Study I:</b> An Exploration of the period prevalence and incidence of OIHD in NHS Grampian and the UK	Review of databases (Local and National) Paradigm: Positivist Methodology: Quantitative Method: Survey
<b>Study II:</b> Effectiveness of Interventions for the prevention of OIHD: A quantitative systematic review	Systematic Review of the world-wide Literature Paradigm: Positivist Methodology: Quantitative Method: JBI Effectiveness Review
<b>Study III:</b> A mixed-methods exploration of the OIHD in wet workers in NHS Grampian	Mixed Methods Paradigm: Pragmatic Methodology: Quantitative and Qualitative Method: Questionnaires and Semi-structured Interviews

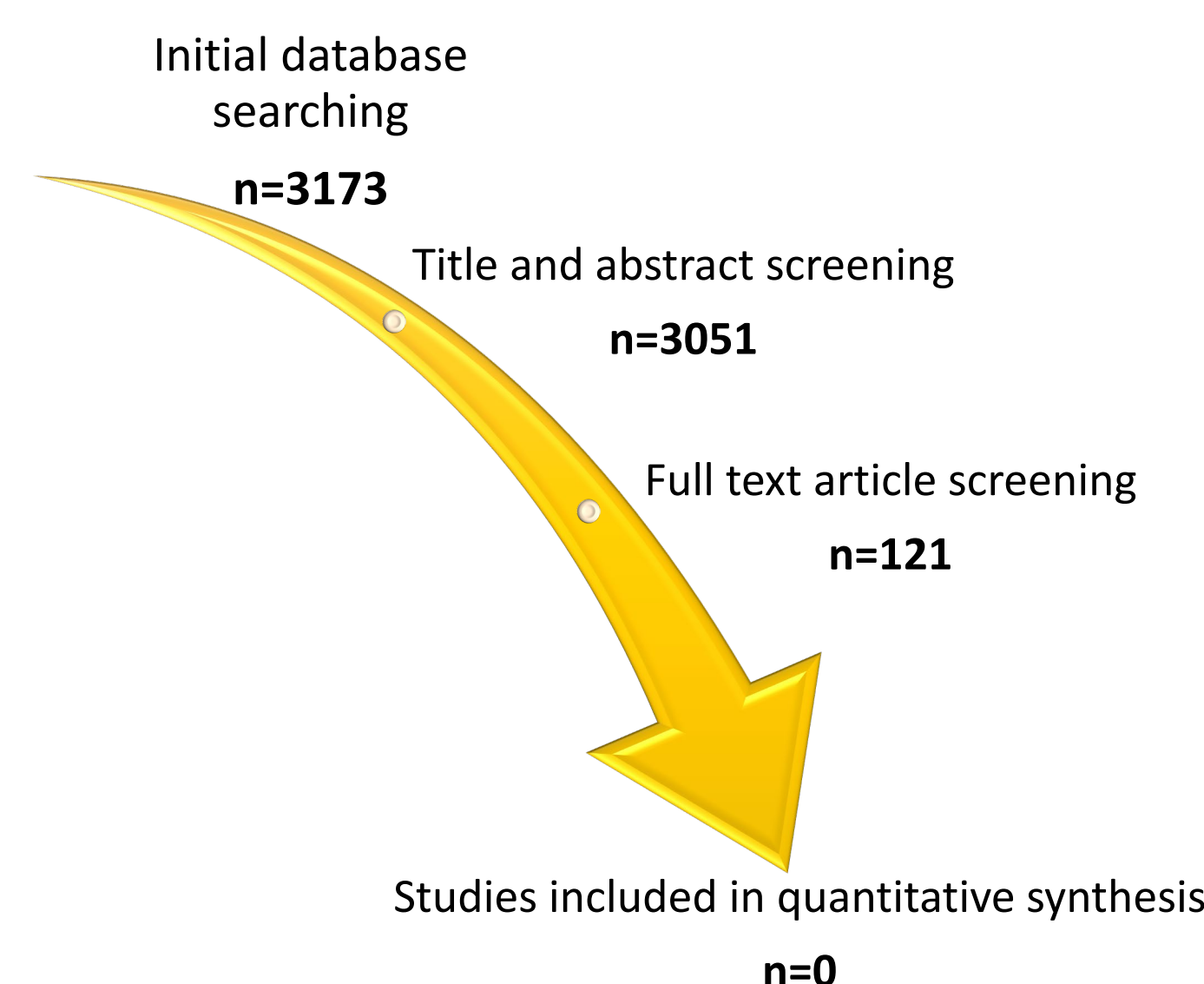
## Study I

The **key findings** outlined that the numbers of wet workers in healthcare locally affected by OIHD **have been increasing annually** between 2010 and 2015. Conversely, the estimated numbers of new cases as reported in HSE's 2022 annual report has reduced steadily during the period 2010-2019 (HSE 2022). The **coronavirus pandemic has impacted recent trends**, and this should be considered when comparing across time periods (HSE 2022). Other contributory factors to this discrepancy between reported cases locally and nationally are: adherence to **different reporting routes**, use of **different reporting criteria** and **effective management of skin disease**.

## Study II

A three-step search strategy aimed to find both published and unpublished studies to determine the effectiveness of interventions in OIHD. **No studies** were located that fulfilled the inclusion criteria for this review. Studies were excluded due to:

- populations not meeting wet workers definition criteria, and/or
- pre-existing skin conditions within samples resulting in studies not testing primary prevention.



There is currently **no evidence available to determine the effectiveness of interventions** for primary prevention of OIHD (Papadatou, Williams and Cooper 2018).

## Study III

### Questionnaire findings:

- Wet work, hand hygiene products as well as use of PPE (particularly rubber gloves) were risk factors for both the development and/or exacerbation of OIHD amongst HCWs.**
- Strong association was found between OIHD and the development of atopic symptoms.**
- The findings highlighted the potential for severe and long-term impact on the health and well-being of the individual.**

### Interview findings:

- Skin health and care facilitators:**  
Hand hygiene/care products, teamwork and provision of supportive mechanisms at work for skin care.  
Skin care self-awareness and adequate time to carry out skin care at work were amongst the most strongly voiced facilitators.
- Skin health and care inhibitors:**  
Lack of support at work including lack of understanding from the patients.  
Work environment.  
Lack of information/training/knowledge at work for skin care.
- Physical and mental effects of skin issues:**  
Increased **risk of infection, visual and sensory aspects**, as well as **quality of life outside work**.  
A range of **psychological issues** were raised by the interviewees  
Specifically, feelings of **embarrassment**, being aware of how patients will perceive the HCWs (fitness for work), **'not looking professional'** (to themselves, their colleagues and patients) and having **distorted self-image** about their skin (Schutte et al. 2023).

## Recommendations

- To better understand the identified behaviours and to develop an intervention based upon effective principles of behaviour change.
- To determine the effectiveness of an educational intervention for the prevention of OIHD amongst wet workers in healthcare.
- To conduct a pilot study using the above findings to test the feasibility of the proposed intervention.



## References

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