

Background

Farmworkers are a medically underserved population and are predominantly Latino in the United States.¹ They face hazardous outdoor conditions and repeated exposure to substances that can lead to work-related skin diseases like occupational contact dermatitis (OCD) which accounts for 70-90% of all occupational skin diseases.² There is paucity of literature on OCD in Latino farmworkers.

Objectives

The purpose of the study is to review existing literature on OCD in Latino farmworkers to investigate the prevalence, risk factors, and skin-related quality of life among Latino farmworkers.

Methods

A systematic search was performed in PubMed, Web of Science, and Cochrane for all studies published before September 1, 2023 using the following terms: ("farmer" OR "farmworker" OR "farm worker" OR "agricultural worker") AND ("contact dermatitis" OR "occupational dermatitis" OR "allergic contact dermatitis" OR "irritant contact dermatitis") AND ("Latino" OR "Hispanic" OR "Latinx" OR "Latina"). The PRISMA guidelines were used for the selection of studies. Inclusion criteria for this systematic review were Latino farm workers who were 18 years or older with symptoms of allergic or irritant contact dermatitis after exposure to allergens or irritants during farm work. Abstracts and short communications without full-text, non-English papers, animal studies, and studies that lack relevance for this systematic review, such as studies that do not involve Latino farm workers were excluded.

Results

Our search returned 7 articles, detailing 469 patients in total. Prevalence rate for contact dermatitis ranged from 5.6% to 12.2%. There were no differences in prevalence based on types of crops subjects harvested based on the seven articles reviewed. The odds of contact dermatitis decreased with age and increased with decreasing housing quality and pesticide exposure. Plants, chemicals, pesticides, and wet work were cited as possible causative agents. Subjects had a greater odds of being diagnosed with inflammatory skin disease in the final periods of the crop season compared to the earliest period. Farmworkers who worked in or near fields in which subjects have reported pesticides have been applied and living in poor housing both increased patients odds of developing contact dermatitis. Self-reported skin problems were more strongly related to skin-related QoL than dermatologist-diagnosed skin conditions, and itching was a strong predictor of total Dermatology life Quality Index (DLQI). Most farmworkers were limited to North Carolina and Georgia, with most of them working on tobacco, cucumbers, and sweet potatoes. Participants primarily relied on self-treatment and delayed seeking professional treatment until condition interfered with their ability to work. Often irritant dermatitis caused by agents (i.e., bleach, vinegar, alcohol, and lemon juice) used in self-treatment can be superimposed on primary contact dermatitis. Lesions were described as erythematous, shiny violaceous plaques with overlying scale and lichenification.

Conclusion

Considering the challenges in accessing healthcare within the Latino farmworker community, each interaction that a healthcare provider has with these patients presents a valuable opportunity to intervene in harmful practices and mitigate future issues. Providing education on the appropriate management of skin conditions can be a useful complement to addressing the immediate skin concerns. This approach can potentially deter future self-inflicted skin damage and support the positive steps patients may already be taking, like wearing protective clothing such as long sleeves and pants. Future studies should delineate the processes by which environmental factors cause and exacerbate dermatitis and develop practical systems that can deliver medical care to Latino farmworkers.

Limitations

Most farmworkers were limited to North Carolina and Georgia, with most of them working on tobacco, cucumbers, and sweet potatoes, which may have led to different skin diseases versus others working on different crops or locations. Secondly, a high percentage of study participants had H2A visa and consequently, these farmworkers may be in better health than those without. There is also potential for selection bias in that subjects who participate in the studies may over-present farmworkers with contact dermatitis. Further, many forms of contact dermatitis may have been missed on medical visits and examinations done on a non-work day.

References

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2. Mekonnen TH, Yenealem DG, Tolosa BM. Self-report occupational-related contact dermatitis: prevalence and risk factors among healthcare workers in Gondar town, Northwest Ethiopia, 2018-a cross-sectional study. *Environ Health Prev Med.* 2019 Feb 14;24(1):11. doi: 10.1186/s12199-019-0765-0. PMID: 30764759; PMCID: PMC6376784.

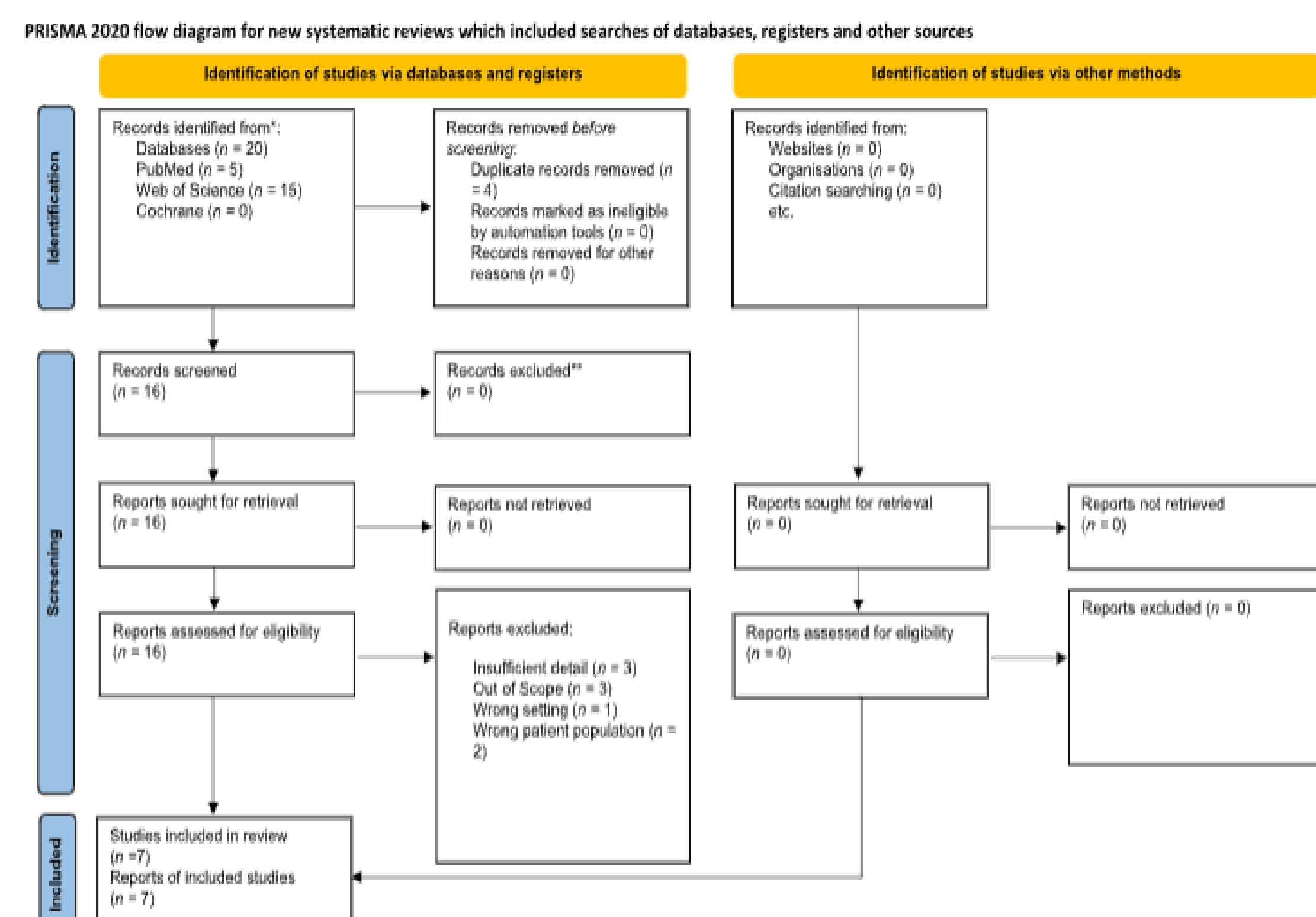
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*Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers). **If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools. From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71. For more information, visit: <http://www.prisma-statement.org/>