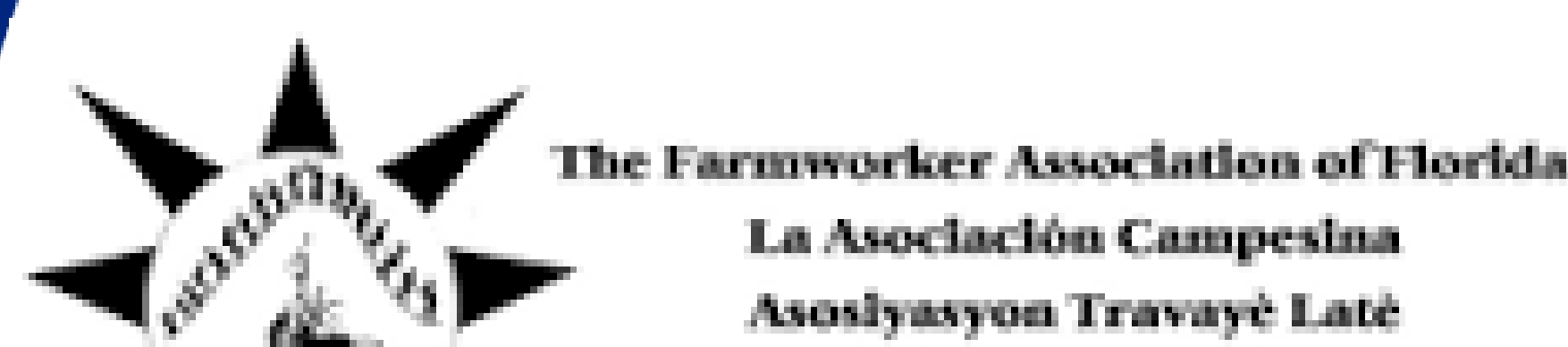


The Association of Skin Rashes with Work Environment, Personal Protective Equipment and Hygiene Practices in Female Farmworkers

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Background

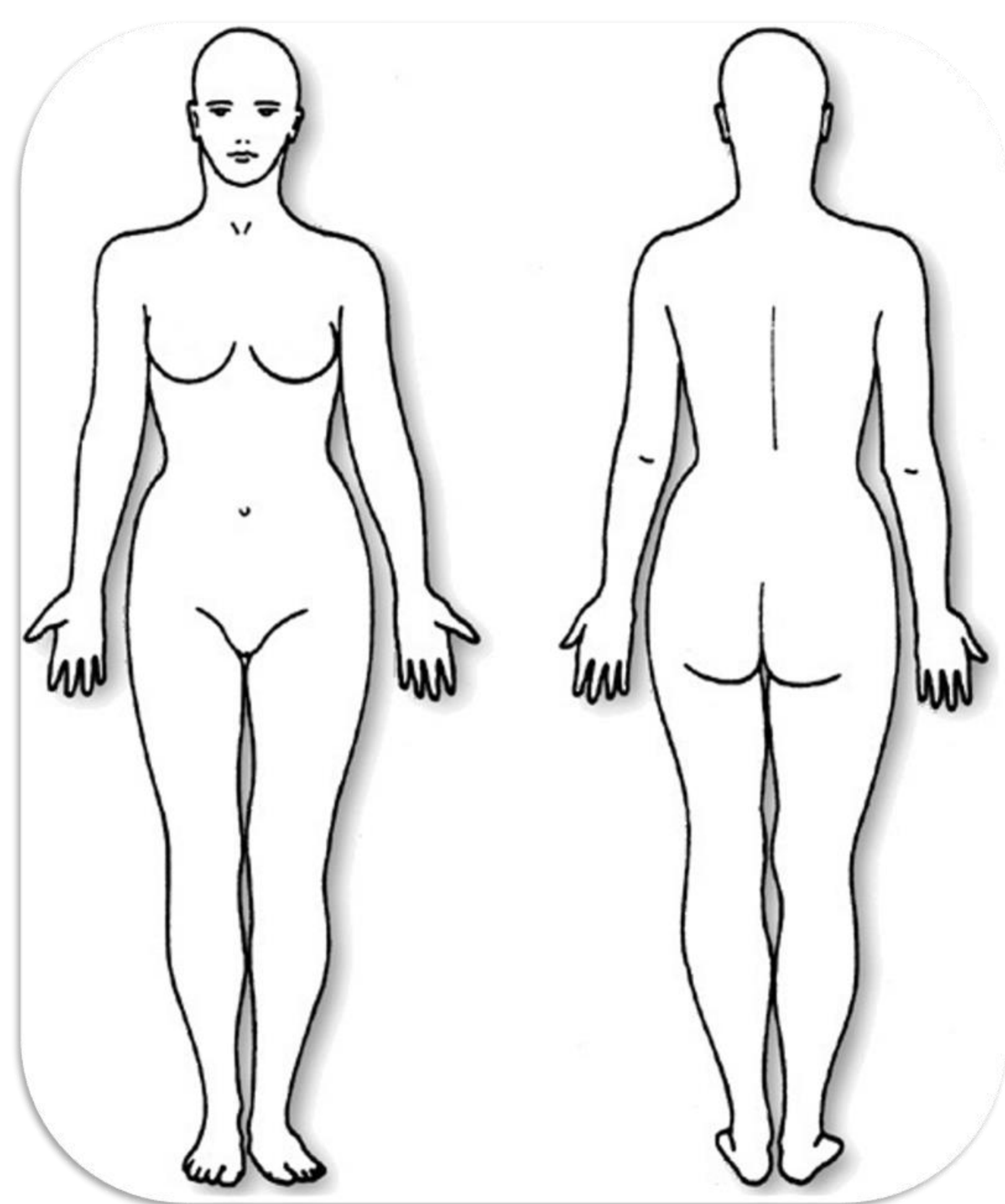
Skin rashes are common among farmworkers due to the significant cutaneous contact with crop-associated materials, pesticides, and work related practices. Exposure varies by type of chemicals applied, dosage/method of application, practices such as hand washing, personal protective equipment (PPE), and personal hygiene. The objective of this study was to assess self-reported personal behaviors and the frequency and location of skin rashes among female nursery and fernery workers in central Florida.

Methods

This was a secondary analysis of data collected in a larger study to assess pesticide risk perception and biomarkers of exposure in Florida female farmworkers. The parent study was a cross-sectional study designed to compare workplace characteristics, behaviors, and health beliefs of female farmworkers with significant cutaneous contact working in a nursery or fernery setting. The study included focus groups and used the “Agricultural Work Practices Questionnaire” to explore pesticide exposure, workplace practices and personal hygiene practices. Additionally a diagram to document location of skin rash was used. Community health workers assisted farmworkers in using the body diagrams to document skin rashes.

Data Collection Tools

The rash chart was based on the work of Lund & Browder (1944) and estimates of Body Surface Area, BSA. Each area of the body was designated a percentage to determine total percentage of rash to body surface area. The “Agricultural Work Practice Questionnaire” contained questions related to work that could expose the body to plant material and residual pesticides on plants. The questionnaire also surveyed hygiene practices and use of PPE.



Results

83 female farmworkers between the ages of 20-40 completed skin assessments, including 18 nursery workers and 65 fernery workers. Nursery workers reported 5.7 average years working in agricultural and fernery workers 10.5 years. Similar distributions of body area covered in rash were reported for fernery (20%) and nursery workers (16.8%). The most common sites of rash varied based on exposed skin; rash was most common on forearms (62%), hands (56%), and anterior chest or neck (23%). Areas of non-exposed skin demonstrated rash less than 20% of the time.



Key Findings

- Rash chart is shown to be a potentially successful clinical tool
- Higher degree of rash seen with lack of PPE
- Cutting & trimming, weeding, cleaning worksite, and loading by hand saw higher incidence of rash.
- Use of PPE and hygiene practices are important

Conclusions

These findings provide further evidence of the frequency of skin rash among farmworkers. Areas of the body in direct or close contact with crops were more likely to have rash than areas not in direct contact with crops. Further research is needed to better understand the development of skin rashes among farmworkers and effective prevention strategies.



Nursery and Fernery Worker use of Personal Protective Equipment (PPE) and Hygiene Practices

PPE and Hygiene Practices	Frequency	Nursery	Fernery
Hand washing available at work site	Always/Sometimes	4	38
	Never	15	29
Soap/Paper towels available at work site	Always/Sometimes	4	25
	Never	15	25
PPE available at work site	Always/Sometimes	6	69
	Never	13	1
Shower after leaving work site	Within 30 minutes	15	32
	Greater than 30 min	4	35
Remove clothing after leaving work site	Within 30 minutes	18	32
	Greater than 30 min	1	34

References available upon request

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