Empowering Community Health Workers for Early Detection and Referral of Atopic Dermatitis in Underserved Areas of Multan, Pakistan

Learning Objective:

To assess how training Community Health Workers improves early detection and referral of Atopic Dermatitis in underserved communities of Multan.

Takeaway Message:

Empowering CHWs enhances timely diagnosis and referral of AD, bridging care gaps and improving outcomes in low-resource areas.

Dr. Abdul Mannan Mustafa
M.B.B.S

Coordinator Research,
Helping Hands Foundation, Pakistan
abdulmannan100598@gmail.com

Prof. Dr. Ghulam Mustafa
M.B.B.S, F.C.P.S

Professor & Head of Paediatric Medicine, Shaqra University, Saudi Arabia
ghulammustafa@su.edu.sa

Conflict of Interest: The authors declare that there is no conflict of interest.

Moisture loss
Allergens
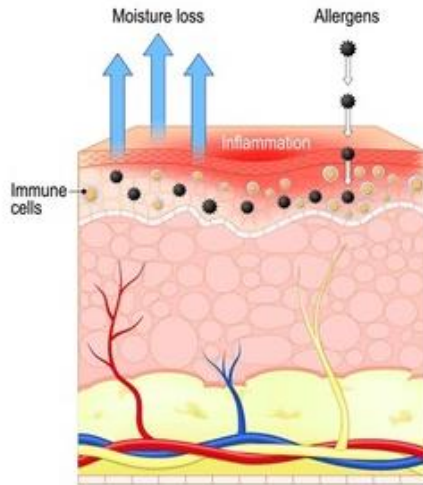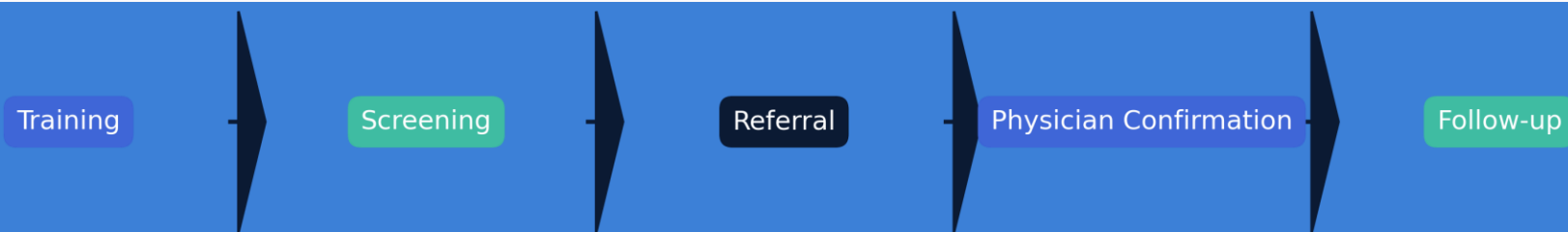Inflammation
Immune cells

Background

Atopic Dermatitis (AD) often remains underdiagnosed in Pakistan's underserved regions due to limited access to specialized dermatologic care and low community awareness. These challenges contribute to delayed recognition and inadequate management of the condition. Community Health Workers (CHWs) act as vital links between communities and healthcare systems, helping to bridge this gap. By empowering CHWs to detect early symptoms and facilitate timely referrals, complications can be reduced and patient outcomes significantly improved.

Objectives

- To assess the feasibility and impact of training CHWs for early detection and referral of AD cases in low-income communities of Multan.

- To evaluate the improvement in Community Health Workers' knowledge and skills regarding the recognition and management of Atopic Dermatitis after targeted training.

- To measure the effectiveness of CHW-led referrals in enhancing early diagnosis, follow-up adherence, and community awareness about Atopic Dermatitis in underserved populations.
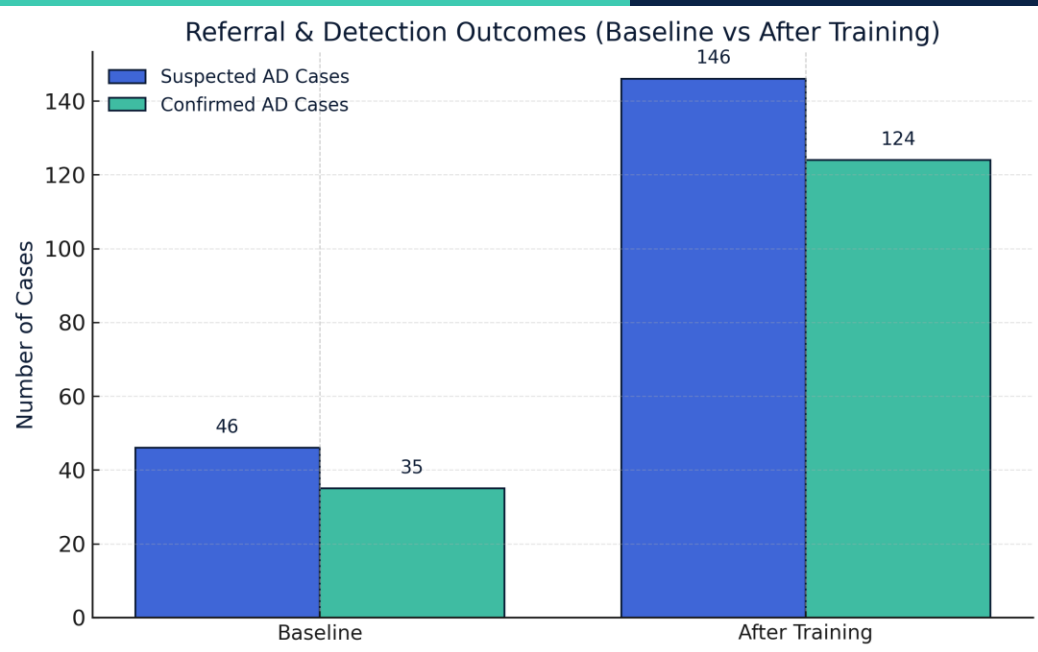
Methodology

Training → Screening → Referral → Physician Confirmation → Follow-up

- Study Design: 6-month pilot intervention (8 urban slums in Multan)

- Participants: 10 trained CHWs

- Training Content:

  - AD recognition (symptoms, triggers)

  - Basic skin care & hygiene guidance

  - Referral protocols and documentation

- Tools: Standardized reporting forms, pre- and post-training assessments

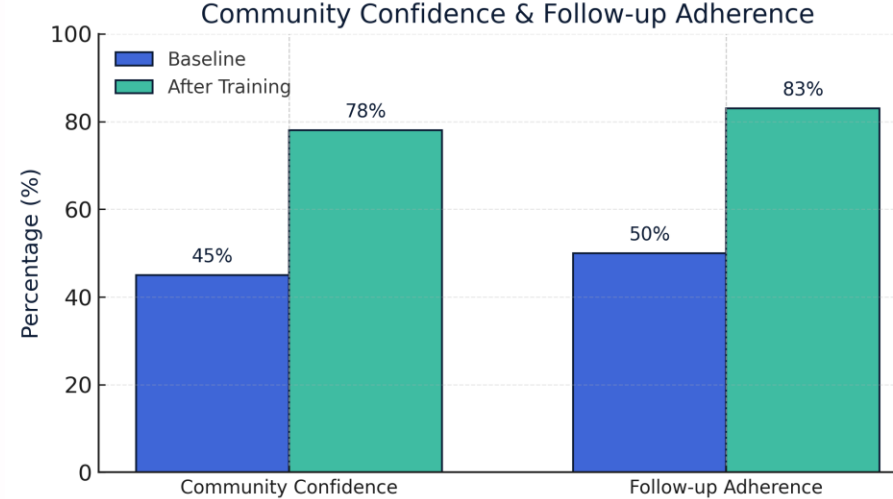- Verification: Physician confirmation of referred cases.
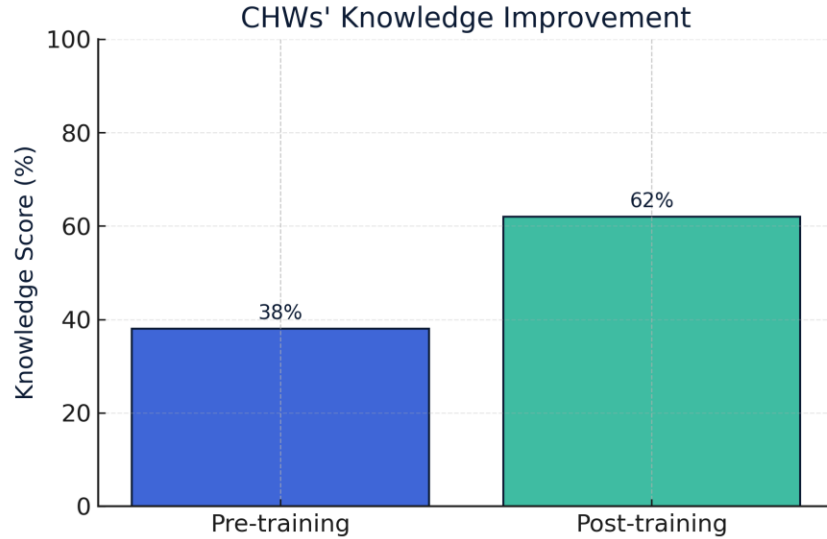
Results

Referral & Detection Outcomes

Referral & Detection Outcomes (Baseline vs After Training)

- **146 suspected AD cases identified**
- **124 (84.9%) confirmed clinically**
- **Referrals increased 3.2× from baseline.**

Training Effectiveness

CHWs' Knowledge Improvement

- Pre-training: 38%
- Post-training: 62%

Knowledge Score (%)

Community Confidence & Follow-up Adherence

- Baseline
- After Training

	Baseline	After Training
Community Confidence	45%	78%
Follow-up Adherence	50%	83%

Percentage (%)

CHWs' knowledge scores improved by 62% post-training

Community trust in CHWs' dermatologic guidance increased notably

Follow-up adherence among referred patients improved.

Discussion

+ CHWs can serve as effective frontline screeners for dermatologic conditions.

+ Structured training programs improve diagnostic awareness and referral accuracy.

+ Community-level involvement enhances trust, compliance, and continuity of care.

Conclusion

Training CHWs for AD detection and referral is both feasible and impactful.

Integrating them into dermatologic outreach efforts could transform early diagnosis and reduce the burden of untreated AD in vulnerable populations.

Recommendations

• Expand CHW training to rural and peri-urban areas.

• Include dermatology modules in primary healthcare training curricula.

• Establish referral networks between CHWs and dermatologists.

• Monitor long-term outcomes through digital reporting or follow-up tools.

Thanks!

Do you have any questions?

Contact Information:
   Scan here

Dr. Abdul Mannan Mustafa
M.B.B.S

Prof. Dr. Ghulam Mustafa
M.B.B.S, F.C.P.S