

TO ASSESS THE EFFECTIVENESS OF DIKIR FARMASI ON PRACTICE REGARDING PESTICIDE SAFETY AMONG PESTICIDE HANDLERS (FARMERS) RESIDING IN MULSHI TALUKA OF PUNE DISTRICT.”

¹Sumit Rane & Dr. Ranjana Chavan²

^{1,2} Research Scholar, Department of Community Health Nursing, Symbiosis College of Nursing, Symbiosis International Deemed University (SIU), Pune Maharashtra, India

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ABSTRACT

Pesticides are widely used in agriculture to protect crops from pests, and their use is essential to ensure a stable and abundant food supply. However, the handling and use of pesticides can pose a significant risk to human health, particularly for those who handle them regularly. Pesticide handlers, including farmers, farmworkers, and pest control professionals, are at risk of acute and chronic health effects from pesticide exposure. Therefore, it is critical to ensure that proper safety practices are implemented to minimize exposure to pesticides. The purpose of this research is to investigate the effectiveness of Dikir Farmasi (folk song) on pesticide safety practices among pesticide handlers in agriculture and pest control settings

RESEARCH METHODOLOGY

Research Approach: Quantitative Approach, Research Design: Pre-Experimental Design, Type: One group pretest posttest Design. The researcher implemented: Non probability Convenience Sampling., with a total of 60 samples collected from Mulshi taluka of Pune district. Tool was divided into 1. Demographic data 2. Pesticide Safety Questioner. For Score, Poor Practice (0-16), Average Practice (16-33). Good Practice (34-50). Analysis was done using Paired t-test, two sample t-test and Fisher's exact test for the association between practices of pesticides safety and selected demographic variables.

RESULT

The practices among farmers regarding pesticides safety improved remarkably after Dikir Farmasi. Average practise scores ranged from 25.6 on the pre-test to 33.8 on the post-test. (T- 15.3 and $p < 0.05$) Hence, the null hypothesis is disproved. It is evident that the practices among farmers regarding pesticides safety improved significantly after Dikir Farmakis

CONCLUSIONS

There is strong evident that the Dikir Farmasi is significantly effective on improving the practice of pesticide safety among pesticide handlers residing in Mulshi taluka of pune district.

KEYWORDS: Dikir Farmasi, pesticide handlers, pesticide handling practices.

INTRODUCTION

Pesticides are now widely utilized all over the world since they are thought to be necessary for agriculture. Pesticides are defined by the Food and Agriculture Organization (FAO) as any compound of materials containing biochemical elements

that are intended to limit plant development or to repel, eradicate, or control pests.¹

The industry has actively advertised the chemicals as a way to boost agricultural output, but doing so has also led to environmental health issues.² Around 20,000 workers die from exposure each year, mostly in underdeveloped nations, according to the World Health Organization (WHO) and United Nations Environment Programme.³

Pesticides are widely used in agriculture to protect crops from pests, and their use is essential to ensure a stable and abundant food supply.⁴ However, the handling and use of pesticides can pose a significant risk to human health, particularly for those who handle them regularly. Pesticide handlers, including farmers, farmworkers, and pest control professionals, are at risk of acute and chronic health effects from pesticide exposure. Therefore, it is critical to ensure that proper safety practices are implemented to minimize exposure to pesticides. The purpose of this research is to investigate the effectiveness of Dikir Farmasi (folk song) on pesticide safety practices among pesticide handlers in agriculture and pest control settings.^{5,6}

People's identities, as well as their values, beliefs, and worldviews, can be expressed and explored through music as a form of art. Dikir Farmasi is a revolutionary method of disseminating health information. The components of dikir barat, a style of traditional folk song, are combined in dikir Farmasi. Dikir Farmasi is used to spread health promotion messages using written materials, stage performances, exhibitions, video compact discs, social media, and CDs.⁷

This study aims to explore the behaviours of pesticide handlers regarding pesticide safety practices, including the use of personal protective equipment (PPE) and the proper handling and disposal of pesticides.⁸ The findings of this study could inform policymakers and stakeholders in developing effective interventions to promote safer pesticide handling practices among pesticide handlers. By doing so, the risks associated with pesticide exposure could be mitigated, ultimately protecting the health and well-being of pesticide handlers and the wider population.^{9,10}

Approximately 61 percent of farmers were aware of the negative consequences of pesticides. However, 26% of them sprayed pesticides while wearing no protective clothes, and 22% mixed pesticides with their bare hands. Approximately 67% of people were recklessly throwing away leftover insecticides on the fields. The two pesticide-related health issues that were most frequently reported were skin issues and neurological system disruptions. Education helps reduce the risks posed by pesticides.¹¹

Farm workers in India who believed that applying pesticides constituted a high risk exhibited more safety behaviors than other farmers, such as not smoking while handling pesticides and taking a shower after spraying.¹² Farmers who had previously suffered health issues from spraying were also more likely to adopt safety precautions like wearing gloves.¹³ The phrase "health literacy" was coined by Kickbusch to refer to all initiatives for promoting good health. The definition of health literacy is the attainment of a degree of knowledge, person skills, and confidence to act to enhance individual and community health by altering individual lifestyles and living circumstances.^{14,15}

However, in Pune, studies regarding pesticides handling practices among farmers are very limited and Hence, there was a need to study the effectiveness of folk song for teaching safe handling practices of pesticides.

STATEMENT OF THE PROBLEM

To Assess the Effectiveness of Dikir Farmasi on practice regarding pesticide safety among pesticide handlers (farmers) residing in Mulshi Taluka of Pune District.”

OBJECTIVES

- To assess the pre-test practices regarding pesticide safety.
- To assess the effectiveness of Dikir Farmasi to promote pesticide safety among pesticide handlers (farmers).
- To find association between practices of pesticides safety and selected demographic variables

METHODOLOGY OF THE RESEARCH

This study is quantitative study, as the self-structured questionnaire was used and scores were recorded based on frequency of following correct safety practices. For questionnaire Likert rating scale was used. Low score 0-16 indicates poor practices, average score 17-33 indicates average practices, Good score 34-50 indicates good practices of pesticide safety. Quantitative research methodology was applied in this study. A quantitative research approach is an investigation into an issue. The researcher employed a quantitative technique to examine the effectiveness of Dikir Farmasi on pesticide handlers residing in Mulshi taluka of Pune district in this study.

The design adopted for this study pre-experimental one group pre-test, post-test design. It identifies and assesses the practice about pesticide safety among pesticide handlers (farmers). The researchers also described the association with demographic variable

The current research used 60 samples of pesticide handlers (farmers) residing in Mulshi taluka of Pune district fitting in the inclusion criteria.

The approach of Non probability Convenience Sampling Technique was chosen.

ANALYSIS AND DISCUSSIONS

I. Sociodemographic Variables of Farmers Based on Their Personal Characteristics

- Almost all the age groups have 20-25% of the participants.
- More than 50% were males whereas females' participants were less in numbers. (31.7%)
- Most (40%) of the participants have done their education till higher secondary and very few (15%) were graduated. In addition, 20% were not educated.
- Around 30% of the samples were employed and farmers, 28.3% of them were not employed and 11.7% of them were retired.
- As far as Income is concerned, many of the participants (31.7%) had Rs.5001-10000 income whereas 11.7% of them had income less than Rs. 5000.
- 30% of them had farming experience of 1 to 2 years, 35% of them had farming experience 3 to 5 years, 16.7% of them had farming experience 6 to 8 years and 18.3% of them had farming experience more than 8 years.55% of them had 1 to 2 acres of farm.
- 31.7% of them had 3 to 5 acres of farm, 8.3% of them had 6 to 8 acres of farm and 5% of them had more than 8

acres of farm.

II. Effectiveness of Dikir Farmasi To Promote Pesticide Safety Among Pesticide Handlers (Framers) n=60

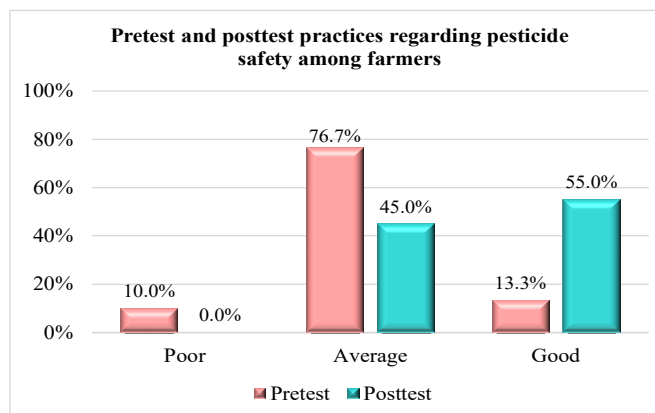


Figure 1: n=60

Before an intervention, 10% of the farmers had poor practices, 76.7% and 13.3% of them had average practices and good practices regarding pesticides safety respectively. After Dikir Farmasi 45% and 55% samples had average and good practices score respectively. This indicates that the practices among farmers regarding pesticides safety improved remarkably after Dikir Farmasi

III. Paired T-Test for the Effectiveness OF Dikir Farmasi to Promote Pesticide Safety Among Pesticide Handlers (Framers)

Table 1:

	Mean	SD	T	df	p-value
Pre-test	25.6	6.4	15.3	59	0.000
Post-test	33.8	4.3			

Average practice scores ranged from 25.6 on the pre-test to 33.8 on the post-test. This test has a 15.3 T-value and 59 degrees of freedom. The null hypothesis is disproved due to a small (less than 0.05) corresponding p-value. It is obvious that following Dikir Farmasi, agricultural practices regarding pesticide safety substantially improved.

IV. Association of Practices of Pesticides Safety With Selected Sociodemographic Variables of Farmers

p-value for the demographic variable education is low (less than 0.05), demographic variable education is shown to be significantly correlated with farmers' pesticide safety practices.

DISCUSSIONS

In this study it was found that, before an intervention more than half of the participants had average practices regarding pesticides whereas almost 55% had good practices.

This indicates that the practices among farmers regarding pesticides safety improved remarkably after Dikir Farmasi. Average practice scores ranged from 25.6 on the pretest to 33.8 on the posttest. It is evident that the practices among farmers regarding pesticides safety improved significantly after Dikir Farmasi. A health message linked with oral tradition is evaluated in Laos utilising traditional folk songs ('lam'). The qualities and efficacy of the lam, such as oral

tradition, artistic ability, and cultural values, were used to increase participant reactions, such as learning and expressing personal attitudes and community actions for combating HIV/AIDS. The Lao people benefit from the oral tradition represented by lam in particular when it comes to remembering and transmitting information.¹⁶ A Kalajatha-community-based health education approach for the bio-environmental management of malaria in rural India. The exposed respondents significantly increased their understanding of malaria and its prevention tactics, notably bio-environmental ones, and changed their attitudes towards them (p 0.001).⁷ We assessed farmers' understanding, knowledge, and behaviours regarding pesticide dealing with, usage, and container disposal. The socioeconomic characteristics, such as educational level, age, and years of farming experience, affected farmers' behaviour regarding safety.¹⁸

CONCLUSIONS

Dikir Farmasi" has significant implications for nursing practice, education, administration, and research. Incorporating traditional medicine practices into nursing education and practice can enhance patient care, provide culturally competent care, and contribute to the advancement of nursing research.

ETHICAL APPROVAL

- Ethical approval has obtained from Institutional Research Committee

CONFLICT OF INTEREST

- None

SOURCE OF FUNDING

- Self

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