

## A pre-experimental study to assess effectiveness of information booklet regarding warning signs of mental illness among adults in selected area of Pune city

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### ABSTRACT

**Introduction:** Mental illness remains a significant public health concern globally, often going undiagnosed due to a lack of awareness about its early warning signs. In India, particularly in urban settings like Pune, stigma and limited mental health literacy contribute to delayed recognition and treatment. **Aim of the study:** To assess the effectiveness of an information booklet in enhancing knowledge among adults about the warning signs of mental illness. **Methodology:** A pre-experimental one-group pre-test post- test research design was used. The study was conducted among 60 adults residing in a selected area of Pune city, chosen using purposive sampling. A structured knowledge questionnaire was administered before and after the intervention. The information booklet, developed and validated by experts, contained detailed content about the warning signs of mental illness. **Results:** The findings revealed a significant improvement in the knowledge scores of adults after the administration of the information booklet. The mean post-test knowledge score ( $22.45 \pm 2.35$ ) was significantly higher than the mean pre-test score ( $14.12 \pm 3.21$ ), with a t-value of 15.67 ( $p < 0.05$ ). This indicates that the information booklet was effective in enhancing the awareness of mental illness warning signs. A significant association was found between post-test knowledge scores and certain demographic variables such as educational status and occupation. **Conclusion:** The study concluded that the information booklet is an effective tool to improve the knowledge of adults regarding the early warning signs of mental illness. Increased awareness can promote early identification, reduce stigma, and facilitate timely intervention.

**KEYWORDS:** Mental illness, Warning signs, Information booklet, Knowledge, Adults, Pune city.

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### INTRODUCTION

The existence of a diagnosable psychological, behavioral, or emotional condition for the last 12 months that substantially interferes with or restricts main life activities is the federal definition of severe mental disorder in adults above the age of 18. These illnesses include, among others, schizophrenia, bipolar disorder, and major depressive disorder. In 2014, it was estimated that 9.8 million adults, constituting 4.1% of the adult population, were affected by serious mental illness during the year. These individuals are statistically more likely to experience unemployment, legal issues, and unstable housing conditions compared to the general population.

Mental disorders entail disruptions in cognition, emotional state, and behavior. These disorders influence interpersonal relationships and decision-making processes. They encompass various forms, some involving chronic anxiety, severe mood fluctuations, or impaired concentration and behavioral regulation. Others may feature persistent intrusive thoughts or perceptual disturbances, such as hallucinations or delusional beliefs. A formal diagnosis is often contingent upon a measurable decline in functional capacity.

### NEED OF THE STUDY

Any abnormality that is clinically significant in a person's emotional regulation, cognitive abilities, or behavioral functioning is referred to as a mental illness. These disruptions are generally linked to personal distress or substantial functional impairment. Mental disorders span a wide range of diagnoses and are often referred to as mental health issues, a more general phrase that encompasses psychosocial impairments, mental illnesses, and other mental states linked to distress, vocational incapacity, or self-harm risk. The definitions provided in the 11th Revision of the Worldwide Classification of Diseases (ICD-11) serve as the foundation for this overview.

Among individuals Between the ages of 10 and 19, conduct problems (20.1%), ADHD (19.5%), and anxiety and depressive disorders make up almost 40% of all mental diseases. After traffic accidents, TB, and interpersonal violence, the World Health Organization ranks suicide as the fourth most frequent cause of mortality for adolescents aged 15 and 19. After maternal conditions and TB, it comes in third among females between the ages of 15 and 19.

A 2023 survey from the United States revealed that 87% of youth regularly experienced mental health problems. Anxiety emerged

as the most prevalent issue, reported by 58% of participants.

India, with over 1.4 billion residents, hosts the world's largest youth population. Of these, more than 253 million are adolescents, forming a critical segment of India's developmental prospects.

**AIM OF THE STUDY:** To assess the effectiveness of an information booklet in enhancing knowledge among adults about the warning signs of mental illness.

**RESEARCH OBJECTIVES:**

1. To assess the knowledge of adults regarding the warning signs of mental illness before the implementation of information booklet.
2. To assess the knowledge of adults regarding the warning signs of mental illness after the implementation of information booklet.
3. To determine the difference between the pre and post intervention level of knowledge among adults regarding warning signs of mental illness.
4. To associate the knowledge regarding warning signs of mental illness with selected demographic variables.

**HYPOTHESIS:**

Null Hypothesis (H<sub>0</sub>): There is no significant difference in the knowledge of adults about warning signs of mental illness before and after the intervention.

Alternative Hypothesis (H<sub>1</sub>): There is a significant improvement in the knowledge and awareness of the warning signs of mental illness among adults in the selected area of Pune city after receiving the information booklet.

**RESEARCH METHODOLOGY**

Research approach: For this study, a quantitative research methodology was used.

Research design: Pre-experimental research design was adopted for this study. (one group pre-test post-test).

Variable:

- Dependent variable: Knowledge on warning signs of mental illness
- Independent variable: Information booklet

Research setting:

The selected areas belonged from Urban areas of Pune city.

Population

Target population: Adults aged 18 to 50 years from the selected setting in Pune city.

Sample:

Adults between 18–50 years from selected area.

**CRITERIA FOR SAMPLE SELECTION**

Inclusion Criteria:

1. Individuals who are between the ages of 18 and 50.
2. Those who are able to understand /read English or Marathi.

Existing when the data was gathered.

Exclusion Criteria:

1. Adults with debilitating illness and can't respond to the questionnaire.
2. Adults who were exposed to such type of study before.

Sample size:70

**SAMPLING TECHNIQUE:** Non-Probability Purposive Sampling technique

Data collection tool:

Section I: Demographic Information.

Section II: Self-structured questionnaire on mental disease warning indicators.

**DESCRIPTION OF THE TOOL:**

Section A: Demographic Variables

This section comprises 10 items designed to collect background information from the participants. The variables include: Age, Gender, Occupation, Educational Qualification, Marital Status, Monthly Family Income, Previous Knowledge about Mental Illness, Family History of Mental Illness, Occupation.

Section B: Self-Structured Questionnaire

This section consists of twenty multiple-choice questions specifically created to assess participants' knowledge of the warning signs of mental illness.

#### RELIABILITY:

- Reliability was done from 11/11/2024 to 17/11/2024. Using the Karl Pearson formula, the test-retest approach was used to determine the assessment knowledge tool's dependability. Investigator calculated the “R-value = The value of R is +0.8906.” which means tool was reliable.

#### PILOT STUDY:

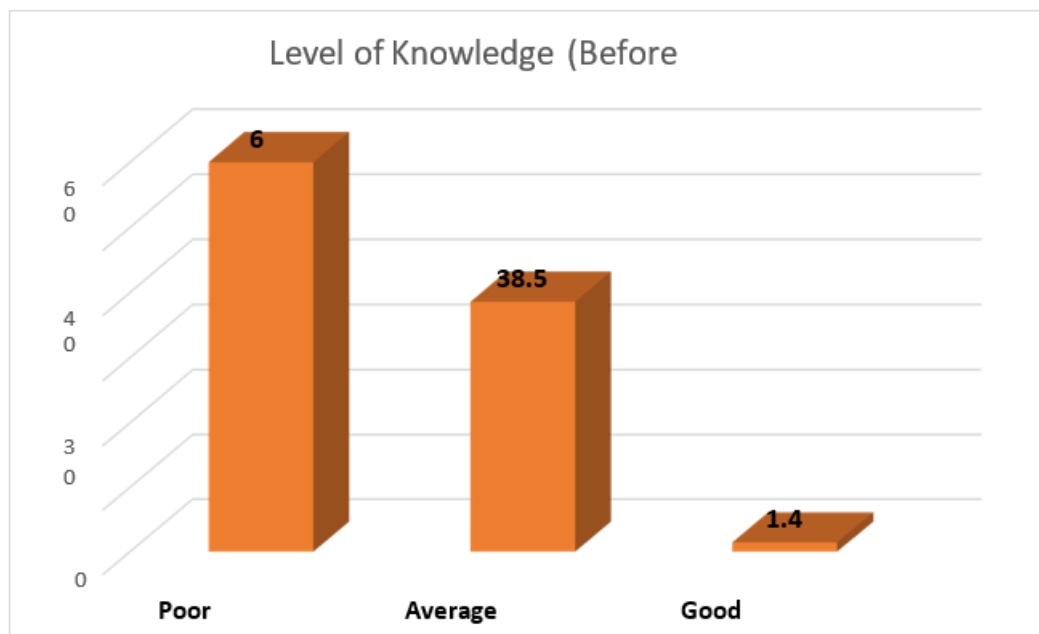
- The pilot project began on November 18, 2024. Permission was taken from community area. The pilot study was conducted in X area for feasibility of study on seven sample. The paired t-test produced a very significant ( $p < 0.05$ ) t-value of 6.74 and a p-value of 0.0004. This demonstrates how well the information booklet worked to raise participants' awareness of the warning signals of mental illness.

#### RESULTS

Section I: Description of samples based on their demographic characteristics in terms of frequency and percentage. The demographic data analysis shows that most participants were aged 36–45 years (28.57%), followed closely by the 26–35 age group (27.14%). The least represented group was 46 years and above (18.57%). The majority were females (47.14%), followed by males (42.86%), with a small proportion identifying as transgender (10%). Most participants had secondary (30%) or higher secondary education (31.43%), while 8.57% had no formal education, indicating varied educational backgrounds. Participants were mostly self-employed (25.71%) or worked in the private sector (24.29%). 11.43% were students, while 15.71% were unemployed. More than half were married (54.29%), while 35.71% were single. A small percentage were divorced (7.14%) or widowed (2.86%). Income distribution was relatively even, with most earning above ₹30,000 (30%) or ₹20,001–30,000 (28.57%), showing a moderately diverse economic background. A large majority (78.57%) had no prior knowledge, indicating the need for awareness programs. Only 21.42% reported having some prior information. Most participants cited social media (34.29%) and family/friends (31.43%) as sources of mental health information, while healthcare professionals (10%) were less frequently mentioned. All participants (100%) reported no known family history of mental illness, indicating low self-reported genetic or familial links in this sample.

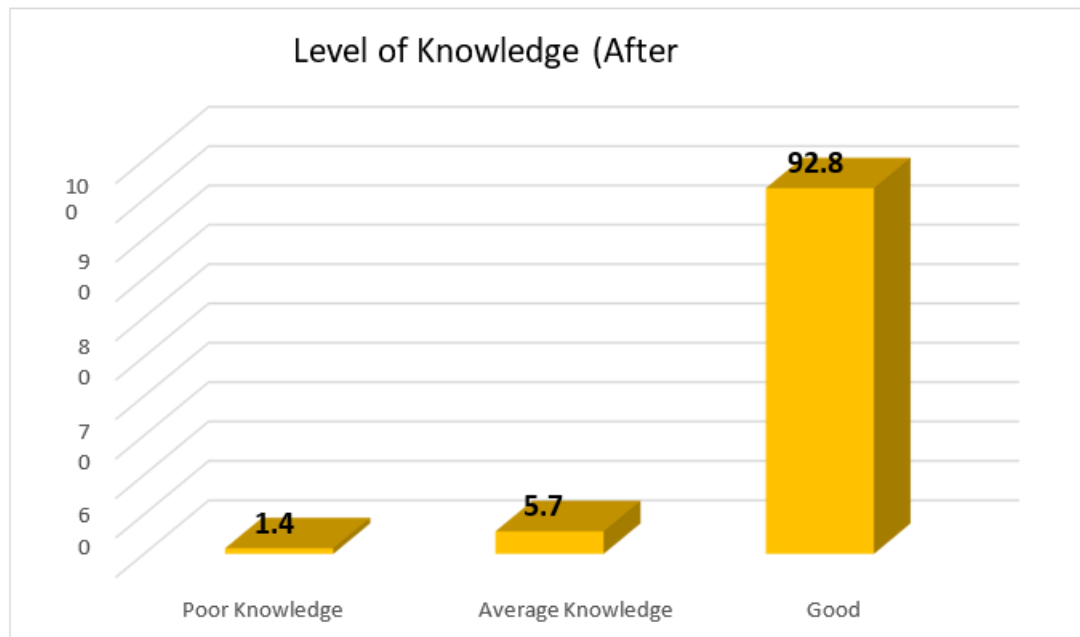
Section II: Knowledge about warning signs of mental illness among adults before & after intervention

Level of Knowledge (Before Intervention) Prior to intervention, the majority of people (60%) knew very little about the warning indicators of mental illness.



#### Level of Knowledge (After Intervention)

The information booklet intervention resulted in excellent knowledge for the majority of individuals (92.86%).



### SECTION III: Effectiveness of information booklet on knowledge about warning signs of mental illness among adults

**Table 1: Effectiveness of Knowledge before and after intervention**

Effectiveness of Knowledge	Mean	SD	t value	p value	Remark
Before Intervention	7.17	2.74	25.58	<.0001	S
After Intervention	16.89	2.29			

Following the intervention, knowledge ratings significantly improved, with a very significant p-value (<0.0001).

### SECTION IV: Association of findings with demographic variables

Knowledge levels did not significantly correlate with age, gender, education, marital status, income, prior knowledge, or family history ( $p > 0.05$ ). Occupation showed a significant association ( $p = 0.01$ ), indicating employed participants had better awareness. Source of Information was also significantly associated ( $p = 0.02$ ), with participants informed by healthcare professionals or media showing higher knowledge.

## DISCUSSION

The present study set out to assess how an information booklet affected people's awareness of the warning signals of mental illness. The findings have been discussed below in alignment with the study objectives and in comparison, with previous relevant studies.

A pre-experimental study by Neeta Ambore et al. (2022) revealed that, in reference to the causes of mental illness, 38.33% of participants in Maharashtra had excellent knowledge, 31.67% had very high knowledge, and 25% had mediocre knowledge. Only 3.33% had excellent and 1.67% had poor knowledge, with a mean score of  $13.70 \pm 4.26$ . This indicates relatively strong baseline awareness in that region. In comparison, the present study revealed significantly lower awareness, with a majority showing poor knowledge, highlighting the need for similar educational efforts in Pune to bridge the mental health literacy gap.

The effectiveness of the intervention was statistically significant in the current study, with the paired t-test yielding a t-value of 25.58 and a p-value  $< 0.0001$ , confirming a strong impact of the booklet in enhancing awareness. A study by D. Sakhardande et al. (2023) found that post-intervention, good knowledge increased to 77.7% and poor knowledge dropped to 5.9%, highlighting the effectiveness of structured booklets in enhancing awareness, consistent with similar outcomes in the present study.

## CONCLUSION:

Majority finding was found after intervention that 92.86% adults were having good knowledge about warning signs of mental illness. The results of the research demonstrated that the information booklet was successful in raising adults' awareness of the warning signals of mental illness. At the community level, structured, easily understood educational initiatives, such as pamphlets, may be very helpful in raising awareness of mental health issues and identifying the early signs of mental illness.

**CONFLICT OF INTEREST:** The authors certify that they have no involvement in any organization or entity with any financial

or non-financial interest in the subject matter or materials discussed in this paper.

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