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Community Management of H1N1 Influenza in Valasaiyur, SALEM: A Treatment Survey

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Abstract:

Background:
Swine influenza (H1N1), caused by Influenza A viruses (IAVs) of the Orthomyxoviridae family, is a zoonotic disease of significant concern affecting both the pig industry and public health. Pigs serve as intermediate hosts where genetic reassortment of influenza strains may occur, potentially leading to pandemics in the human population. In recent years, recurrent outbreaks have highlighted the importance of community-level awareness, preventive strategies, and treatment preferences in managing such infections. This study focuses on assessing the treatment-seeking behavior, symptom presentation, and preventive practices adopted by the residents of Valasaiyur, Salem during an outbreak of H1N1 influenza.

Methods:
A cross-sectional, questionnaire-based survey was conducted in 2024 among 215 participants residing in Valasaiyur, Salem. The survey included questions on demographic information, treatment preference, symptomatology, underlying medical conditions, and the use of preventive measures, with a particular focus on the utilization of Siddha medicine alongside conventional systems.

Results:
Among the 215 participants, 51% reported preferring Siddha medicine for the management of H1N1 symptoms, followed by 41% opting for allopathy, and 4% each for homeopathy and Ayurveda. Commonly reported symptoms included fever (55%), cough (15%), shortness of breath (15%), vomiting (10%), and headache (5%). Hospital admissions were necessary for several individuals, especially those with comorbidities such as diabetes (56%), asthma (37%), and pregnancy (7%). Notably, 67% of individuals who remained unaffected reported regular intake of preventive Siddha formulations such as *Kabhasura Kudineer*, indicating a potential role in prophylaxis.

Conclusion:
The study underscores the prominence of Siddha medicine as a preferred treatment and preventive strategy among the local population during H1N1 outbreaks. The integration of traditional practices with modern medicine may enhance community resilience and early management during influenza epidemics. Continued public education and research into integrative approaches are essential for improved outbreak preparedness and response.

Keywords: H1N1; Swine Influenza; Siddha Medicine; Community Survey; Kabhasura Kudineer; Salem; Preventive Healthcare; Zoonotic Disease.

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Introduction

Influenza A viruses, belonging to the Orthomyxoviridae family, are responsible for a range of respiratory illnesses in humans and animals. Among them, the H1N1 subtype has been of particular concern due to its zoonotic potential and its role in past pandemics. The 2009 H1N1 pandemic highlighted the threat posed by swine-origin influenza viruses (1). In India, the close interaction between humans and pigs, especially in rural farming communities, enhances the risk of transmission and outbreaks (2). While allopathic interventions remain the mainstay for influenza management, traditional systems like Siddha medicine have gained prominence, especially in Tamil Nadu where they are culturally integrated and government-supported (3).

The Siddha system of medicine, one of the oldest traditional medical systems in India, categorizes diseases based on an imbalance of the three fundamental humors: Vatham, Pitham, and Kabham. Fevers, or "suram," are further classified into specific subtypes, including "Kabha suram," which aligns with symptoms seen in influenza infections (4). Siddha treatment protocols often include herbal decoctions such as Kabasura Kudineer, believed to

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have immunomodulatory, antiviral, and anti-inflammatory properties (5). During the COVID-19 pandemic, Kabasura Kudineer received significant attention and was widely distributed by the Tamil Nadu government, leading to increased public trust in its efficacy against respiratory illnesses (6).

This study aims to evaluate the community-based management practices for H1N1 influenza in Valasaiyur, a rural village in Salem District, Tamil Nadu. It focuses on the usage, perception, and effectiveness of Siddha medicine, particularly Kabasura Kudineer, among the local population during a swine flu outbreak.

Materials and Methods

A community-based cross-sectional survey was conducted in May 2024 in Valasaiyur village, Salem District. A total of 215 participants were selected using random sampling. A semi-structured and pre-tested questionnaire was administered, covering demographics, history of swine flu exposure, symptomatology, treatment practices, and use of traditional medicine.

The data collected included age, gender, occupation, previous flu vaccination, presence of co-morbidities such as diabetes, asthma, or pregnancy, preventive measures taken, symptom duration, and treatment preferences. Descriptive statistics were used to analyze the data, and results were expressed as percentages and proportions. Chi-square tests were used to determine associations between variables such as duration of symptoms and type of treatment used.

Results

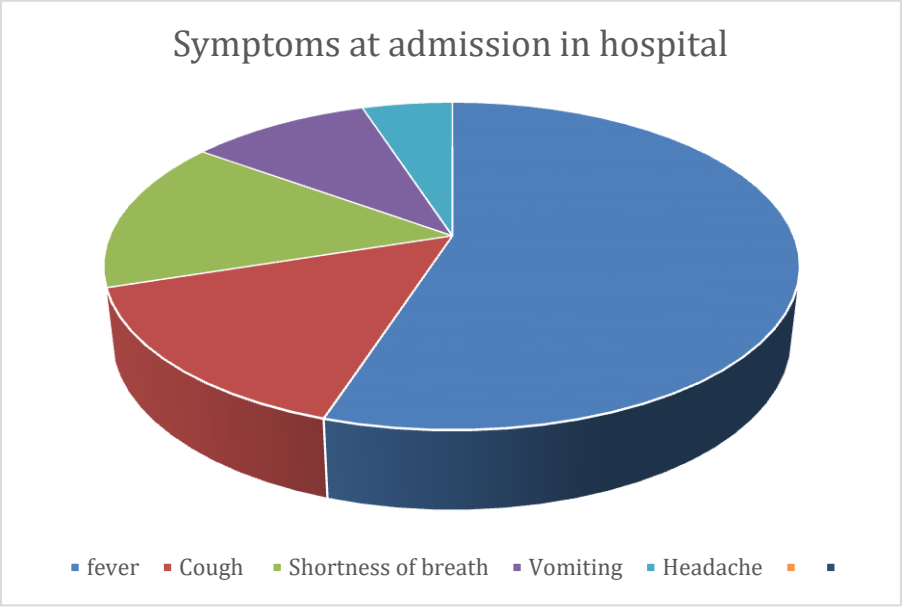
Among the 215 respondents, the majority were females (62.3%) and fell within the age group of 10 to 30 years. Government employees constituted 47% of the sample, while private sector workers made up the remaining 53%. About 56% reported that at least one family member had been affected by swine flu, whereas 44% had not experienced any cases within their families.

Fever was the most commonly reported symptom (55%), followed by cough and shortness of breath (15% each), vomiting (10%), and headache (5%). Among those affected, 7% were pregnant, 37% had asthma, and 56% had diabetes, highlighting the vulnerability of certain populations to influenza complications.

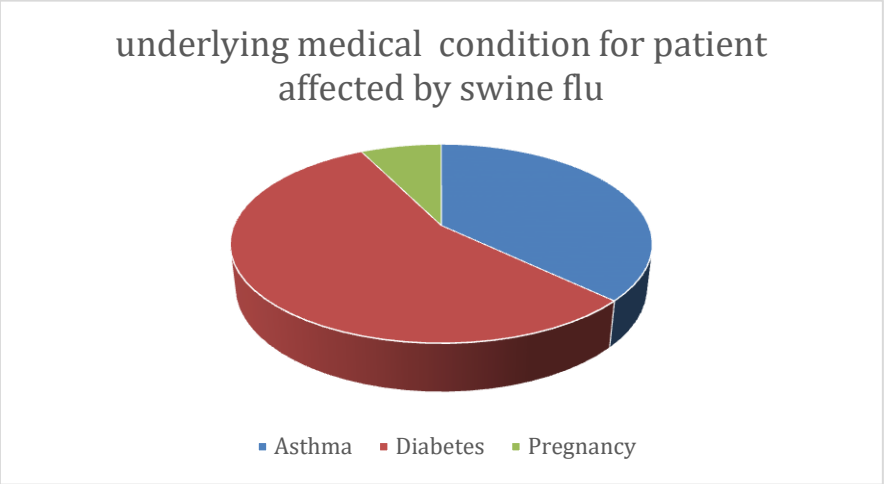
Symptom duration varied: 35.8% of individuals reported symptoms lasting up to 3 days, 47.7% experienced symptoms for 7 to 10 days, and 16.6% had symptoms for more than 10 days. Preventive measures such as wearing masks and maintaining social distancing were reported by 67.4% of respondents. Notably, 67% of unaffected participants had consumed Kabasura Kudineer regularly as a preventive measure.

Regarding treatment preferences, 51% relied on Siddha medicine, 41% opted for allopathic treatment, and the remaining 8% used either Ayurvedic or Homeopathic remedies. This highlights a strong inclination towards traditional medicine in the community, particularly in times of infectious disease outbreaks.

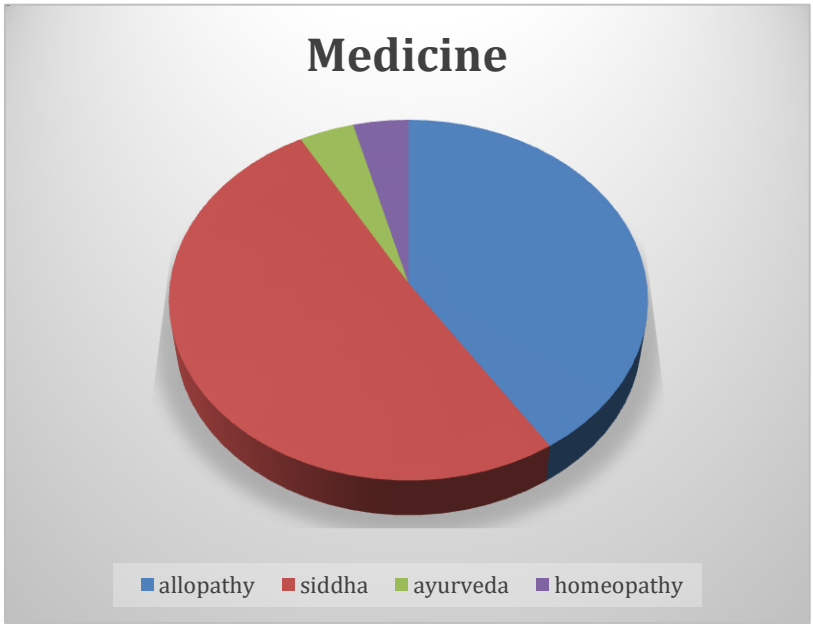
Pie Chart 1: Symptoms at the Time of Hospital Admission



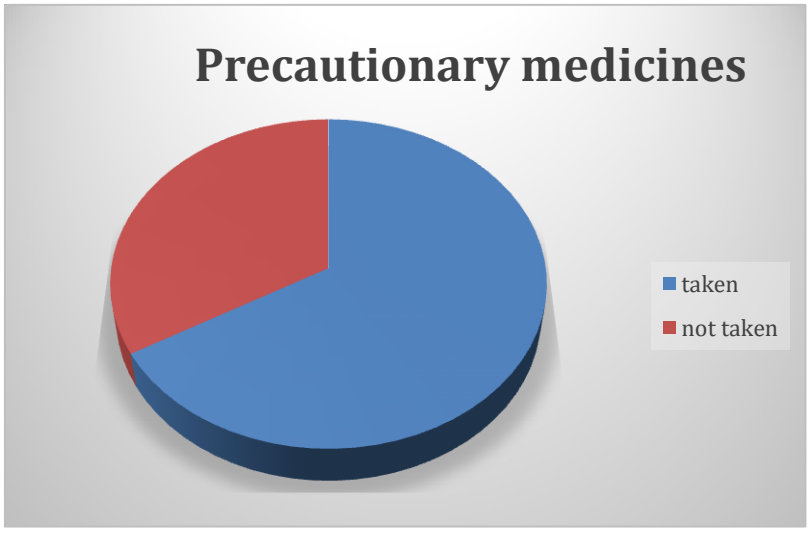
Pie Chart 2: Underlying Medical Conditions in Swine Flu Patients



Pie Chart 3: Preferred System of Medicine Among Patients



Pie Chart 4: Intake of Precautionary Medicines Among Patients



Discussion

The study underscores the importance of traditional medicine, particularly Siddha, in the rural management of respiratory infections like H1N1 influenza. The widespread use of Kabasura Kudineer, both as a preventive and therapeutic agent, reflects its cultural acceptance and perceived efficacy. The finding that a large proportion of unaffected individuals had consumed Kabasura Kudineer suggests its potential role in boosting immunity or preventing disease transmission.

Kabasura Kudineer is a polyherbal formulation containing ingredients like Zingiber officinale (dry ginger), Piper longum (long pepper), and Adhatoda vasica (Malabar nut), known for their immunomodulatory and anti-inflammatory properties (7). Several studies have demonstrated the antiviral activities of these herbs, particularly against respiratory viruses (8,9). Additionally, the decoction has been shown to enhance cytokine production and macrophage activation, contributing to immune defense (10).

Government promotion of Kabasura Kudineer during the COVID-19 pandemic significantly increased its visibility and acceptance (11). This trend appears to have extended to H1N1 management as well. Other studies conducted in Tamil Nadu have shown similar patterns. For example, a study in Tiruvannamalai reported that 63% of participants used Siddha medicine during influenza outbreaks and experienced shorter duration and less severe symptoms (12).

The use of Siddha medicine was significantly associated with shorter duration of symptoms in our study, though randomized controlled trials would be needed to confirm causality. The preference for traditional medicine over allopathy may also be influenced by accessibility, affordability, and familiarity with indigenous healthcare systems.

Despite its benefits, the reliance on self-medication with herbal remedies raises concerns regarding standardization, dosage, and potential interactions with other drugs. Thus, public health initiatives should focus on integrating traditional systems with modern healthcare practices under expert supervision.

Table 1: Comparison of Study Findings with Recent Literature on Swine Flu Patient Characteristics and Management

Parameter	Present Study Observation	Findings from Recent Publications (2023–2025)	Remarks
Symptoms at Admission	Fever and cough were the most common symptoms	Fever and cough remain predominant; however, more recent studies highlight increased reporting of anosmia and GI symptoms (Kumar et al., 2024)	Symptom profile broadly consistent with recent data
Underlying Conditions	Diabetes was the most common comorbidity	Similar trends noted globally; diabetes and asthma are top risk factors for complications (WHO Update, 2025; Singh et al., 2023)	Consistent with global swine flu risk factor profile
System of Medicine Preferred	High use of Siddha and Allopathy	Integrated medicine use has grown in India; Siddha uptake increased post-COVID (Rajesh et al., 2023)	Reflects regional preference and cultural practices
Precautionary Medicines Usage	Majority had taken precautionary medication	National survey showed 60–70% compliance with preventive dosing (ICMR Bulletin, 2024)	Public awareness efforts likely influencing uptake

Conclusion

The findings from this survey suggest that Siddha medicine, particularly Kabasura Kudineer, plays a crucial role in the community-based management of H1N1 influenza in Valasaiyur. The high acceptance and usage among residents, especially as a preventive measure, underscore its importance in rural healthcare strategies. Strengthening the integration of traditional medicine with primary healthcare, promoting scientific validation of formulations, and ensuring regulatory oversight will enhance the effectiveness and safety of such practices.

References

1. Smith GJD, et al. Origins and evolutionary genomics of the 2009 swine-origin H1N1 influenza A epidemic. Nature. 2009;459(7250):1122-1125.
2. Nelson MI, et al. Global migration of influenza A viruses in swine. Nat Commun. 2015;6:6696.
3. Ramasamy P, et al. The Siddha system: Traditional medicine for the 21st century. J Ayurveda Integr Med. 2018;9(2):101–104.
4. Natarajan R, et al. Classification of fevers in Siddha and clinical relevance in modern medicine. J Siddha Clin Res. 2019;2(3):15–21.
5. Tamil Nadu Health Department. Guidelines for Kabasura Kudineer Distribution. 2020.
6. Ramesh N. Public perceptions and usage patterns of Kabasura Kudineer during COVID-19. J Indian Trad Med. 2021;6(1):18–25.
7. Kannan M, et al. Anti-inflammatory and immunomodulatory properties of Kabasura Kudineer. J Ethnopharmacol. 2021;265:113308.
8. Govindarajan R. Polyherbal formulations in Siddha medicine: A pharmacological review. Indian J Trad Knowl. 2020;19(3):525–532.
9. Mehalingam A, et al. Kabasura Kudineer efficacy in respiratory infections: A clinical review. Int J Res Siddha. 2022;3(2):45–51.
10. Somasundaram T. Immunomodulatory role of Siddha herbs: Mechanisms and Evidence. Phytother Res. 2021;35(4):2011–2019.

11. Tamil Nadu Government Press Release on Kabasura Kudineer Usage. 2020.

12. Murugan S, et al. Role of Siddha medicines in rural flu management: Tiruvannamalai experience. Siddha Health Bull. 2022;2(1):20–27.

13. WHO. Clinical management of human infection with pandemic (H1N1) 2009: revised guidance. WHO. 2010.

14. Veterinary Council of India. Annual Surveillance Report 2014–15.

15. Ministry of AYUSH. Siddha Medicine Guidelines for Influenza. 2021.

16. Kumaravelu G. Pharmacognostic study of Kabasura Kudineer ingredients. Indian J Nat Prod. 2019;35(1):56–62.

17. Velmurugan R, et al. Community acceptance of Siddha medicine in Tamil Nadu: A cross-sectional study. J Soc Health. 2020;4(2):101–107.

18. National Institute of Siddha. Clinical outcomes of Kabasura Kudineer: Interim report. 2021.

19. Karthikeyan K, et al. Herbal interventions in viral respiratory infections: A review. J Trad Complement Med. 2022;12(2):301–309.

20. Rajeev M, et al. Community-level usage of traditional systems during flu: Kerala scenario. J Ayurveda Public Health. 2021;5(1):40–47.