

Effectiveness of Video-Assisted Teaching Modules in Health Education: A Focused Literature Review of Studies Published Between 2015 and 2025

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Abstract—Background

Health education is an essential component of healthcare practice, disease prevention, health promotion, and patient empowerment. Traditional teaching methods may not always ensure learner engagement, consistency of information, or effective understanding among diverse populations. Video-Assisted Teaching Modules (VATMs) have increasingly been used as structured audiovisual educational interventions in nursing, clinical, community, maternal-child, caregiver, and public health settings. However, the available evidence is dispersed across different populations, health topics, and research designs.

Aim

To review and synthesize the available evidence regarding the effectiveness of Video-Assisted Teaching Modules in improving health-related knowledge, attitude, practice, and related outcomes among different population groups.

Methods

A focused literature review was undertaken using a structured review framework. Original research studies published between 2015 and 2025 were considered. Studies were eligible if they evaluated a Video-Assisted Teaching Module or explicitly identified VATM as an educational intervention and reported measurable outcomes following the intervention. The review was not restricted to nurses or nursing students and included healthcare workers, students, mothers, women, caregivers, and community populations. Study characteristics, including population, sample, health topic, intervention, research design, comparator, and outcomes, were extracted and synthesized narratively.

Results

The reviewed evidence demonstrated broad application of VATM across clinical, community, educational, maternal-child, caregiver, and public health contexts. The majority of studies used pre-experimental one-group pre-test/post-test designs. Knowledge was the most frequently measured outcome, while attitude, practice, and utilization were evaluated less frequently. Across the reviewed studies, VATM was generally associated with improvement in post-intervention knowledge. Studies evaluating practice and attitude also reported favourable outcomes. However, the evidence base was characterized by methodological heterogeneity, frequent absence of control groups, variable sample sizes, and limited assessment of long-term learning retention.

Conclusion

Video-Assisted Teaching Modules appear to be useful educational interventions for improving health-related knowledge across diverse populations and health topics. Their structured and audiovisual nature makes them potentially valuable in nursing education, patient education, caregiver education, and community health. However, stronger comparative research designs and longer follow-up periods are required to establish the sustained and comparative effectiveness of VATM.

Index Terms—Video-Assisted Teaching Module, VATM, video-assisted teaching, health education, nursing education, patient education, educational intervention

I. Introduction

Health education is an integral component of healthcare delivery and plays an important role in disease prevention, health promotion, treatment adherence, self-care, and informed decision-making. Effective health education is required not only for patients but also for caregivers, healthcare professionals, students, mothers, families, and community populations.

Traditional educational approaches, including lectures, demonstrations, discussions, and printed materials, continue to be widely used. However, these approaches may be influenced by variation in teaching methods, learner attention, literacy level, time availability, and opportunities for repeated learning. The increasing use of audiovisual and digital educational approaches has therefore created opportunities for delivering health information in a more structured and engaging manner.

A Video-Assisted Teaching Module (VATM) is a planned educational intervention in which video serves as the principal medium for delivering structured learning content. Depending on the topic, a VATM may include narration, demonstrations, visual illustrations, animations, text, clinical scenarios, and stepwise explanations.

The audiovisual nature of VATM may facilitate learning by presenting information through both visual and auditory channels. It may be particularly useful for explaining procedures, demonstrating observable clinical signs, presenting stepwise care, and providing standardized educational content.

VATM has been applied across diverse populations and health topics. Studies have evaluated its use among healthcare workers, nurses, nursing students, mothers, women, caregivers, school children, college students, and community populations. The intervention has been used in areas such as tuberculosis control, osteoporosis prevention, neonatal care, breast self-examination, neonatal resuscitation, colostomy care, obesity prevention, infection prevention, maternal and child health, puerperal sepsis, diabetic-foot care, cardiac arrhythmias, uterine prolapse prevention, and young-infant danger signs.

Although individual studies have generally reported positive findings, the available evidence remains scattered across different journals, populations, health conditions, and methodological approaches. A consolidated review is therefore necessary to understand the broader application and effectiveness of VATM.

The present focused literature review was undertaken to synthesize evidence regarding the effectiveness of Video-Assisted Teaching Modules published between 2015 and 2025.

II. Background and Rationale

The integration of audiovisual methods into health education has expanded considerably over recent years. Video-based education offers several practical advantages. It can provide consistent information, demonstrate procedures, illustrate clinical conditions, and allow educational content to be repeated.

A structured VATM may be useful when the same information needs to be delivered repeatedly to multiple learners. It may also be beneficial where visual demonstration is important or where healthcare professionals have limited time for repeated individual teaching.

VATM has particular relevance in healthcare because many health-related concepts involve observable procedures, warning signs, preventive behaviours, or practical care activities. For example, video can demonstrate clinical procedures, explain warning signs, illustrate self-care practices, or present realistic scenarios.

The available literature suggests that VATM has been used across a wide range of populations. This broad applicability distinguishes VATM from educational interventions designed exclusively for professional education. It has been evaluated among healthcare professionals as well as patients, caregivers, mothers, women, students, and community populations.

However, positive improvement in post-intervention scores should not automatically be interpreted as evidence of superiority over other educational approaches. Many VATM studies have used one-group pre-test/post-test designs. Such studies can demonstrate improvement following an intervention but provide limited evidence regarding whether VATM is more effective than lectures, demonstrations, printed materials, or other teaching methods.

Furthermore, knowledge has been the predominant outcome in many studies. Fewer studies have assessed whether improved knowledge leads to sustained behavioural change, improved practice, clinical competence, or better health outcomes.

Therefore, reviewing the available literature is important not only to identify positive findings but also to understand the methodological limitations and gaps in the evidence.

III. Need for the Review

The present review was undertaken because the available evidence on VATM remains dispersed across different health-related populations and settings.

First, individual VATM studies have focused on specific health topics. A broader review provides an opportunity to examine the intervention across multiple areas of healthcare.

Second, VATM has not been restricted to nursing professionals or nursing students. It has also been used among mothers, caregivers, women, students, healthcare workers, and community populations. A broader review is therefore necessary to understand the full scope of its application.

Third, the outcomes evaluated following VATM vary across studies. While knowledge is commonly assessed, some studies have also examined attitude, practice, and utilization.

Fourth, the methodological quality of the available studies varies. Many studies use pre-experimental designs, while relatively few include comparison or control groups. A review can identify these methodological patterns.

Finally, synthesizing studies published between 2015 and 2025 provides a contemporary overview of the application and reported effectiveness of VATM over a defined period.

IV. Aim

To review the available evidence regarding the effectiveness of Video-Assisted Teaching Modules in improving health-related knowledge, attitude, practice, and related outcomes among different population groups.

V. Objectives

The objectives of the review were to:

1. Identify studies published between 2015 and 2025 that evaluated Video-Assisted Teaching Modules.
2. Describe the populations and health-related topics addressed by the included studies.
3. Examine the research designs used to evaluate VATM.
4. Synthesize the reported effects of VATM on knowledge, attitude, practice, and related outcomes.
5. Identify methodological strengths and limitations of the available evidence.
6. Identify implications for nursing practice, health education, and future research.

VI. Review Questions

The review was guided by the following questions:

1. Among which populations have Video-Assisted Teaching Modules been evaluated?

2. What health-related topics have been addressed using VATM?
3. What research designs have been used to evaluate VATM effectiveness?
4. What outcomes have been measured following VATM interventions?
5. What overall pattern of effectiveness is reported?
6. What gaps and methodological limitations are evident in the available literature?

VII. Methods

7.1 Review Design

The present study was conducted as a focused literature review using structured study identification, screening, and data extraction. The purpose of the review was to provide a focused synthesis of the available evidence regarding the application and effectiveness of VATM across diverse health-related populations and settings. The review was not designed as a formal systematic review and did not claim exhaustive database coverage.

7.2 Review Period

Studies published between January 2015 and December 2025 were considered for review.

Publication year was used as the primary criterion for the review period. Where information was available, the actual study or data-collection year was considered separately from the publication year.

7.3 Eligibility Criteria

Inclusion Criteria

Studies were included if they:

- were original research studies;
- were published between 2015 and 2025;
- evaluated a Video-Assisted Teaching Module or explicitly identified the intervention as VATM;
- assessed the effectiveness or outcome of the educational intervention;
- involved human participants;
- included healthcare professionals, healthcare students, patients, caregivers, mothers, women, students, or community populations;
- reported measurable outcomes.

Exclusion Criteria

Studies were excluded if they:

- were published outside the defined period;
- did not evaluate the effectiveness of the intervention;
- described only development of an educational module;
- represented duplicate publications;
- did not clearly identify a VATM intervention;
- lacked sufficient study-level information for reliable extraction.

7.4 Population

The review was not restricted to any single population.

The reviewed studies included:

- Accredited Social Health Activists;
- staff nurses;
- ICU nursing staff;
- nursing students;
- ANM students;
- mothers;
- postnatal mothers;
- primi mothers;
- premenopausal women;
- perimenopausal women;
- primary caregivers;
- adolescent girls;
- school-going children;
- college students;
- adults;
- community populations.

7.5 Intervention

The intervention of interest was: Video-Assisted Teaching Module (VATM) or an educational intervention explicitly described as a video-assisted teaching module.

7.6 Comparator

The reviewed studies varied in their comparison approaches.

Many studies compared:

- pre-intervention and post-intervention outcomes.
- Some studies included:
- comparison groups;
- control groups;
- quasi-experimental approaches.

7.7 Outcomes

The primary outcome was:

- Knowledge.
- Secondary outcomes included:
- Attitude;
- Practice;
- Utilization;
- Other learning-related outcomes.

7.8 Data Extraction and Synthesis

The following information was extracted where reported:

- author;
- publication year;
- study year;
- population;
- sample size;
- health topic;
- intervention;

- research design;
- comparator;
- outcomes;
- main findings.

The findings were synthesized narratively because of substantial variation in populations, topics, interventions, study designs, and outcome measures.

VIII. Results

8.1 Overview of the Evidence

The focused evidence set comprised studies published between 2015 and 2025 evaluating VATM across a broad range of populations and health topics.

The evidence demonstrated that VATM has been used in:

- clinical nursing education;
- patient education;
- caregiver education;
- maternal and child health;
- women's health;
- community health;
- disease prevention;
- infection prevention;
- health promotion;
- professional education.

The majority of studies evaluated changes in knowledge following the intervention.

8.2 Characteristics of Reviewed Studies

Table 1. Characteristics of Studies Evaluating VATM

No.	Study	Year	Population	Sample	Topic	Design	Outcomes
1	Pradhan & Dash	2015	ASHAs	52	RNTCP	Pre-experimental	Knowledge
2	Mohapatra et al.	2016	Perimenopausal women	NR	Osteoporosis	Pre/post	Knowledge
3	Varghese et al.	2017	Mothers	80	Sibling rivalry	Quasi-experimental	Knowledge
4	Balasubramanian et al.	2017	Primary caregivers	NR	Schizophrenia home care	Evaluative	Knowledge
5	Swain et al.	2018	Postnatal mothers	50	Neonatal danger signs	Pre-experimental	Knowledge
6	Chitra et al.	2018	College students	NR	Health education/services	Evaluative	Knowledge, attitude, utilization
7	Jiss	2018	Autodriver	NR	Trauma management	Evaluative	Knowledge
8	Tomar	2019	ANM students	70	Breast self-examination	One-group pre/post	Knowledge

9	Singh	2021	Nurses	30	Neonatal resuscitation	One-group pre/post	Knowledge
10	Halemani et al.	2021	Primary caregivers	30	Colostomy care	Quasi-experimental	Knowledge, practice
11	Vadakkepatt	2022	Adolescent girls	NR	Breast self-examination	Evaluative	Knowledge, attitude
12	Sumiya et al.	2022	Adults	40	Alzheimer's warning signs	Pre-experimental	Knowledge
13	Johnson et al.	2022	School children	NR	Obesity prevention	Evaluative	Knowledge
14	Kumar & Raghavendran	2022	ICU nursing staff	NR	VAP prevention	Pre/post	Knowledge, attitude
15	Suba Sooria	2023	Staff nurses	220	Hospital-acquired infections	Controlled quasi-experimental	Knowledge, practice
16	Yadav et al.	2023	Staff nurses	60	Thrombolytic therapy	Pre/post	Knowledge
17	Thakur	2024	Staff nurses	NR	Forceps delivery	Evaluative	Knowledge
18	Aarnika & Dash	2024	Nursing students	NR	MCH programmes	Pre/post	Knowledge
19	Pradhan & Panda	2024	Postnatal mothers	NR	Puerperal sepsis	Pre/post	Knowledge
20	Mohanlal et al.	2024	Staff nurses	48	Diabetic-foot care	Pre-experimental	Knowledge
21	Swain & Xavier	2024	Staff nurses	50	Cardiac arrhythmias	One-group pre/post	Knowledge
22	Ingle & Gaiki	2025	Premenopausal women	130	Uterine prolapse prevention	One-group pre/post	Knowledge
23	Bhanja et al.	2025	Primi mothers	60	Young-infant danger signs	One-group pre/post	Knowledge

NR: Not reported in the information extracted for the review.

8.3 Application of VATM Across Populations

Healthcare Professionals

VATM was evaluated among:

- ASHAs;
- staff nurses;
- ICU nursing staff.

The health topics included:

- tuberculosis control;
- neonatal resuscitation;
- ventilator-associated pneumonia prevention;

- hospital-acquired infections;
- thrombolytic therapy;
- forceps delivery;
- diabetic-foot care;
- cardiac arrhythmias.

These studies demonstrate that VATM has been used for professional education as well as clinical knowledge development.

Nursing and Healthcare Students

VATM was used among:

- ANM students;
- nursing students.

The topics included:

- breast self-examination;
- maternal and child health programmes.

This suggests that VATM may serve as a useful supplementary educational method in professional education.

Mothers and Women

A substantial proportion of the reviewed studies involved:

- mothers;
- postnatal mothers;
- primi mothers;
- adolescent girls;
- premenopausal women;
- perimenopausal women.

The topics included:

- sibling rivalry;
- osteoporosis;
- neonatal danger signs;
- breast self-examination;
- puerperal sepsis;
- uterine prolapse prevention;
- danger signs in young infants.

These findings demonstrate the relevance of VATM in preventive health and maternal-child education.

Caregivers

VATM was evaluated among primary caregivers in areas including:

- home care of schizophrenia;

- home-based colostomy care.

Caregiver education is particularly important because caregivers often provide continuing support after patients return home.

Community and General Populations

The intervention was also evaluated among:

- adults;
- school children;
- college students;
- autodrivers.

Topics included:

- Alzheimer's warning signs;
- obesity prevention;
- health-related education;
- trauma management.

This indicates that VATM has potential applications beyond formal clinical and nursing environments.

8.4 Research Designs

The most common design identified in the reviewed evidence was the:

One-group pre-test/post-test or pre-experimental design.

The typical sequence involved:

1. Baseline assessment;
2. Administration of VATM;
3. Post-intervention assessment;
4. Comparison of outcomes.

A smaller number of studies used:

1. quasi-experimental designs;
2. comparison groups;
3. controlled designs.

Studies with comparison or control groups provide relatively stronger evidence because they allow the effects of VATM to be interpreted against another educational approach or group.

8.5 Outcomes of VATM

Knowledge

Knowledge was the most frequently assessed outcome.

The reviewed studies examined knowledge regarding:

- tuberculosis;
- osteoporosis;

- sibling rivalry;
- schizophrenia home care;
- neonatal danger signs;
- trauma management;
- breast self-examination;
- neonatal resuscitation;
- colostomy care;
- Alzheimer's disease;
- obesity prevention;
- ventilator-associated pneumonia;
- hospital-acquired infections;
- thrombolytic therapy;
- maternal and child health;
- puerperal sepsis;
- diabetic-foot care;
- cardiac arrhythmias;
- uterine prolapse;
- infant danger signs.

The overall pattern across studies suggested improvement in knowledge following VATM.

Attitude

Attitude was evaluated in fewer studies.

Topics in which attitude was assessed included:

- breast self-examination;
- ventilator-associated pneumonia prevention;
- health-related educational services.

The limited assessment of attitude suggests that this remains an area requiring further research.

Practice

Practice outcomes were reported less frequently.

Examples included:

- home-based colostomy care;
- prevention of hospital-acquired infections.

These studies are important because improved knowledge does not necessarily result in improved behaviour or practice.

Utilization

Utilization was evaluated in a limited number of studies.

This suggests that future VATM research should examine whether educational interventions result in meaningful changes in health-related behaviour and service use.

8.6 Overall Pattern of Effectiveness

The overall evidence suggested a consistent pattern of improvement in measured knowledge following exposure to VATM.

The findings indicate that VATM may be an effective educational strategy because it can combine:

- visual information;
- verbal explanation;
- demonstration;
- structured content;
- repeated exposure.

Studies evaluating practice and attitude also reported favourable outcomes.

However, the evidence should be interpreted with caution because many studies used one-group pre-test/post-test designs without comparison groups.

Therefore, the current evidence supports the potential educational value of VATM but does not establish that VATM is superior to all alternative educational methods.

IX. Discussion

The present focused review examined evidence regarding the effectiveness of Video-Assisted Teaching Modules across diverse populations and health topics.

The first major finding was the broad applicability of VATM. The intervention was not confined to nurses or nursing students. It was used among healthcare workers, mothers, women, caregivers, students, and community populations.

This broad application suggests that VATM is a flexible educational strategy that can be adapted according to learner characteristics and health-related learning needs.

The second major finding was the predominance of knowledge as the primary outcome. Most studies measured knowledge before and after the intervention and reported improvement following VATM.

Video-based educational interventions may facilitate learning because they can integrate verbal explanations with visual demonstrations and structured presentation of information. This may be particularly beneficial when learners need to understand procedures, warning signs, preventive practices, or practical care.

The third major finding was the diversity of health topics addressed. VATM was used in clinical nursing, infection prevention, maternal-child health, women's health, chronic disease-related education, caregiver education, emergency care, and community health.

This suggests that the intervention can be adapted to a wide variety of educational objectives.

However, the methodological pattern of the reviewed studies represents an important limitation.

Most studies used one-group pre-test/post-test designs. These designs are useful for identifying changes following an intervention but provide limited ability to establish causality.

Improvement in post-test scores may be influenced by:

- testing effects;
- familiarity with questions;
- participant motivation;
- concurrent learning;
- researcher interaction.

Therefore, positive findings should generally be interpreted as evidence of learning following VATM rather than definitive evidence of comparative superiority.

A smaller number of studies used quasi-experimental or controlled designs. Such studies provide stronger evidence and should be encouraged in future research.

Another important finding was the limited evaluation of long-term learning.

Many studies assessed outcomes shortly after the intervention. Therefore, the long-term retention of knowledge remains uncertain.

Similarly, relatively few studies assessed:

- sustained practice;
- behavioural change;
- clinical competence;
- patient outcomes;
- health outcomes.

Future research should address these gaps.

Overall, the evidence suggests that VATM is a promising educational intervention, particularly for improving immediate or short-term knowledge. More rigorous research is required to determine its long-term and comparative effectiveness.

X. Major Findings

The major findings of the review were:

1. VATM has broad applicability
 1. It has been used among healthcare professionals, students, mothers, women, caregivers, and community populations.
 2. Knowledge is the predominant outcome
 3. Most studies assessed improvement in knowledge following the intervention.
 4. Positive post-intervention outcomes were commonly reported
 5. The reviewed studies generally demonstrated improvement following VATM.
1. Attitude and practice were assessed less frequently
 6. There remains limited evidence regarding outcomes beyond knowledge.
 2. Pre-experimental designs predominated
 7. One-group pre-test/post-test studies formed the largest proportion of the evidence.
 3. Comparative evidence remains limited
 8. Only a relatively small number of studies included control or comparison groups.
 4. Long-term effectiveness remains uncertain

Most studies evaluated outcomes shortly after the intervention.

XI. Conclusion

The present focused literature review examined the application and effectiveness of Video-Assisted Teaching Modules in health education across studies published between 2015 and 2025. The evidence demonstrates that VATM has been used among diverse populations, including healthcare professionals, students, mothers, women, caregivers, and community groups. It has also been applied across a broad range of clinical, preventive, maternal-child, community, and public health topics. The overall pattern of findings suggests that VATM is associated with improvement in health-related knowledge. Some studies also reported favourable changes in attitude and practice. The intervention therefore appears to be a useful and promising educational strategy for nursing practice, patient education, caregiver education, professional education, and community health.

However, the available evidence is predominantly based on pre-experimental designs and short-term outcomes. Stronger research designs are needed to establish the comparative and sustained effectiveness of VATM. Future research should focus on long-term knowledge retention, behavioural change, practice outcomes, clinical competence, and patient-related outcomes.

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