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Evaluation of a sexually transmissible infections education program: Lessons for general practice learning

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Abstract

Background: The New South Wales (NSW) Sexually Transmissible Infections Program Unit (STIPU) produced nine resources to support the diagnosis and management of sexually transmissible infections (STIs) in general practice. **Objective:** In this study, we explored the processes of developing the resources and outcomes achieved. **Methods:** We analysed project documents and undertook a focus group interview with the STIPU Working Group to evaluate resource development and dissemination. Interviews with general practitioners (GPs) and practice nurses (PNs), combined with previously reported survey findings, provided an outcomes evaluation. **Results:** STIPU used a rigorous, multimodal approach to develop evidence-based clinical resources. GPs and PNs received information opportunistically rather than through targeted searches unless they had a particular interest. GPs were less aware of online resources. **Discussion:** STIPU's best practice translation of clinical guidelines could be enhanced by promotion of online resources, links through general practice software, strong engagement with general practice organisations, and developing the role of PNs.

Keywords

practice, learning, general, evaluation, lessons, program, education, infections, transmissible, sexually

Disciplines

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Background

The New South Wales (NSW) Sexually Transmissible Infections Program Unit (STIPU) produced nine resources to support the diagnosis and management of sexually transmissible infections (STIs) in general practice.

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In this study, we explored the processes of developing the resources and outcomes achieved.

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We analysed project documents and undertook a focus group interview with the STIPU Working Group to evaluate resource development and dissemination. Interviews with general practitioners (GPs) and practice nurses (PNs), combined with previously reported survey findings, provided an outcomes evaluation.

Results

STIPU used a rigorous, multimodal approach to develop evidence-based clinical resources. GPs and PNs received information opportunistically rather than through targeted searches unless they had a particular interest. GPs were less aware of online resources.

Discussion

STIPU's best practice translation of clinical guidelines could be enhanced by promotion of online resources, links through general practice software, strong engagement with general practice organisations, and developing the role of PNs.

The incidence of sexually transmissible infections (STIs) in Australia continues to rise.¹ Although public sexual health clinics provide un-referred services, most STI diagnosis and management occurs in general practice.² General practice is accessible and acceptable to at-risk patients,³ yet management of STIs appears suboptimal² and screening guidelines are frequently not followed.^{4,5}

Translation of evidence into patient care is complex and depends on context, policy and availability of clinical guidelines.⁶ Barriers to STI management in general practice include systems factors such as:

- time pressure⁷
- gaps in knowledge and confidence
- fear of patient embarrassment⁸
- perceptions that patients prefer to explore sexual health with same-sex providers.⁹

The New South Wales (NSW) STI Programs Unit (STIPU) has developed a suite of nine clinician resources to enhance diagnosis and management of STIs in general practice – the 'GP project' (Table 1). We evaluated this program and have reported survey findings identifying awareness and perceived impact of the resources.¹⁰ This article presents the process evaluation, describing strategies used in developing the resources, and project outcomes, focusing on qualitative findings to consider how these strategies worked in achieving the aims of the GP project.

Methods

We used a mixed methods approach informed by Program Logic¹¹ to understand the process of resource development and project outcomes.

Process evaluation included a review of STIPU's GP project documents to ascertain methodological rigour, user friendliness, organisational endorsement, promotion and dissemination of each of the resources (Table 2); and semi-structured focus group

interviews with STIPU's GP project working group to discuss development, promotion and delivery of the resources.

To determine GP project outcomes, including knowledge, skills and behaviour of healthcare providers, we liaised with NSW Divisions of General Practice (DGPs), as they were then known, inviting general practitioners (GPs), practice nurses (PNs) and DGP staff to complete online surveys. These surveys focused on awareness and use of each resource, including integration into general practice. Results of closed-ended survey items were reported using descriptive statistical methods, while open-ended responses were thematically analysed by two research team members.

Two members of the research team interviewed a subset of consenting survey participants, selected to maximise the diversity of age, experience and attitude towards the GP project resources. Interviews focused on outcomes such as:

- use of resources
- reasons for use or non-use
- perceived value
- influence on clinical practice
- learning needs and styles
- suggestions for improvement of the resources.

Interviews were transcribed verbatim. Four members of the research team independently coded transcripts, identifying themes that were later synthesised and agreed upon by consensus. Interviews continued until thematic saturation was reached.¹² The project was approved by the University of Western Sydney's Human Research Ethics Committee (approval number H8886).

Results

Process evaluation

We reviewed more than 350 documents, including:

- GP project work plan
- working group records
- evidence informing the development of resources

- drafts and correspondence related to the resources.

We found that a rigorous approach had been applied to resource development, including needs assessment, use of evidence and access to clinical, educational and GP expertise. The content of resources was tailored to the target audience and presentation of the resources carefully planned to meet healthcare provider needs, including accessibility, and quality improvement and continuing professional development (QI&CPD) recognition.

Information sources were referenced and stakeholder endorsement was provided for all resources where this was identifiable. Promotion and dissemination occurred through professional and educational organisations, and encompassed a range of delivery methods, including hard copy, online, audio and interactive modes of education and support.

Data from a focus group interview conducted with eight of the 21 working group members were supplemented by written feedback from another reference group member. The focus group discussion confirmed a painstaking, iterative approach to resource development, with a sustained focus on improving the delivery of STI management in general practice. Evidence was gathered and reviewed, learning from similar educational initiatives incorporated, and both the nature of the item under consideration and the target audience were considered, including the need to provide key information to a time-poor audience:

We need to keep it short and we really tailored [the resources to] ... the central information people need to know. –

Working group member
Expertise was accessed from within the group and from other relevant organisations. The working group considered the likely range of learning styles and interest levels among the target audience in seeking to provide a variety of resources delivered through a

range of modalities. Content was piloted and revised in response to feedback.

Dissemination and promotion of items were carefully planned to optimise access:

Having [the STI testing tool] ... online, the website attached to other tools that have been used, like the ALM or the information that was in the Medical Observer and the Australian Doctor was also useful – so it was about saturating. For things like the practise nurse tool ... learning our lesson from the STI tool, we utilised more nurse-centred groups [to disseminate the resources]. –
Working group member

Outcomes of the GP project

Surveys were completed by 214 GPs, 217 PNs and 26 project officers from 22 of 33 DGPs approached. Survey results, reported elsewhere,¹⁰ indicated that although users were not aware of the GP project as an entity, there was variable awareness of different resources. The resources that achieved the highest levels of awareness and access were the STI testing tool, sexual health articles and The Royal Australian College of General Practitioners' (RACGP's) *check* program.¹⁰

Fewer GPs were aware of web-based STI resources, although many expressed a need for online access. Similarly, few GPs had accessed the STI active learning module (ALM), although those who had, found it valuable. PN awareness and use of the PN postcard was relatively low. Although more PNs were aware of the PN online training, few had accessed this.

Of the survey respondents, 25% of GPs and 30% of PNs expressed interest in participating in an interview. All who were approached accepted the invitation to participate, and we interviewed nine GPs and 10 PNs. Seven GP participants were female and six worked in urban areas. The number of years the GPs had worked in general practice ranged from two to 40 (median 15.8 years). All PN participants were female and had worked in general practice from one to 24 years (median 5.5 years). Seven PNs worked in rural areas. Interview responses were analysed

to understand how resources were accessed and used, and the impact on practice. We also identified barriers to the use of resources and recommendations for improvement. Findings in relation to improving collaboration between GPs and PNs in delivering sexual healthcare have been previously reported.¹³

Receipt of the resources

There was no consensus among GPs or PNs regarding preferred sources or types of educational material. GPs described accessing information opportunistically from preferred educational providers, rather than identifying sexual health resources through targeted learning strategies:

I just look at all the courses they provide online. – GP1

Probably because they come in the mail and I tend to open those. – GP2

However, some GPs undertook self-directed learning to up-skill in sexual health, including one who completed several GP project learning activities. Those with particular interest were more likely to use targeted approaches to accessing resources:

It's something that I see a lot of, and it's also something that I feel very comfortable with so I guess I try and read up on it when I can. – GP3

The need to keep up to date and meet requirements of the RACGP's QI&CPD program were strong GP motivators:

The incentive to me is that I'd want to be doing what is best practice. – GP3

I do not have lots of time for magazines. I do my CPD program. – GP4

Resources were assessed by GPs for their evidence base and perceived vested interests of the provider:

Generally, it would be things I know are good quality. For example, Therapeutic Guidelines or a GP text book. – GP3
I'm not confident about the editorial process and the desire to sell me something. – GP5

PNs tended to access resources when undertaking women's health training, or

when resources were distributed to their practice:

I think the postcards were brought in the surgery. I'm not quite sure how they got there. But they did appear. You know what it's like resources in GP practices ... The online – just by looking at resources got me interested. – PN1

I became aware of it [postcard & online training] through the Practice Nurse Association. They had that training course on that. – PN2

PNs were often motivated by a particular interest in sexual health or a role in sexual health in their practice.

It's part of my being able to do sexual health and women's health as a practice nurse. It meant that I have to educate myself. – PN1

Usefulness of the resources

The resources were reported to assist with raising the topic of STIs. GPs emphasised their value in informing testing and management, while PNs observed that the PN postcard also validated and supported their role in sexual health:

When I first became qualified to do women's health, I was very nervous. I've done all the theories and the practical. But being on your own, I found it [PN postcard] very helpful ... It made very easy explaining some of the aspects of the check that I'm going to do to the patient. – PN4

If the patients are a bit uncomfortable, I can show them the resources. These are examples of preventive checks and these are the questions that we're going to talk about. – PN3

Different resources supported different uses; the STI testing tool was regarded as convenient, relevant and time-saving in consultations, particularly with an unfamiliar clinical scenario:

I can quickly glance at it and get the answers. – GP3

It's probably useful for populations that I don't see as often. So like sex workers or something like that. – GP1

Several resources were identified as useful in teaching registrars and GP colleagues:

[I] look at a couple of articles to jog my memory and make sure I'm well-rounded and then when I'm talking to the registrar, I would refer the registrar to those as resources as well. – GP2

GPs interviewed reported changes in practice as well as in knowledge, particularly in screening and sexual history taking:

I think that's a big change in my clinical management. If someone comes in for a pill script or a pap smear, I'm asking if they want a test for chlamydia, just for population screening. – GP6

PNs also reported the 'checklist' approach in the PN postcard improved their confidence in advising on sexual health and provided useful links to additional information:

It's a checklist that you could go through to make sure that you've ticked off everything that should be done with a patient. – PN2

Barriers and recommendations

Barriers to using the resources were noted to include competing educational demands, lack of awareness (eg the online resources) and difficulties with immediate access:

There's just so many things out there. Sometimes it's a bit overwhelming.

– GP3

Recommendations for improving awareness of the resources included an enhanced role for local GP education providers, such as DGPs, and promotion through professional organisations such as the Australian Practice Nurses Association.

Different respondents suggested different means of achieving ready access to resources:

As long as there is a link to where you can get more information if you want more detail. – GP3

Make it easily available ... on the computer desktop, so we just click on it. – GP4

GPs recommended provision of information about commonly managed sexual health issues as well as rarer conditions (eg human immunodeficiency virus [HIV]) or groups (sex workers) not commonly seen in some general practices. Case-based education was particularly valued. Information about screening recommendations was valued by GPs and PNs:

I think that GPs want to know ... simple features, what population should you be screening, how do you screen them.
– GP7

Community-wide education was observed to be an important strategy for improving sexual health:

I think it will be easier if there was some education at a community level before they walk in the door. – GP7

Discussion

In spite of the challenges to the translation of evidence into practice generally,⁶ and

those specific for STI management,^{7,8,9} the GP project has demonstrated that a rigorous, multimodal approach to knowledge transfer can improve reported STI management. The STIPU GP project incorporated many features suggested by Grol and Grimshaw¹⁴ to achieve clinical practice change. STIPU used a comprehensive range of approaches tailored to different professional groups, on the basis of evidence, and addressing barriers to best practice in STI management.

The GP project recruited a working group that included clinical experts and representatives of end-user groups. Barriers to STI management, such as failure to follow guidelines,^{4,5} knowledge and confidence gaps,⁸ and assumptions about patient attitudes,⁹ were examined and a range of approaches planned to address these. STIPU's attention to the evidence base of resources, endorsement by professional bodies, and provision

of clinical support tools such as the STI testing tool, which are accessible at point of care, also align with recommendations for facilitating change in clinical practice.^{14,15}

Interviews with GPs and PNs confirmed the value of these approaches. Provision of information through routine continuing education as well as targeted interventions helped extend the reach of the resources beyond those with specific clinical interest and experience. GPs valued the demonstrated evidence base and endorsement by independent, reputable bodies.

Both GPs and PNs reported accessing individual items according to personal learning preferences, as well as clinical and professional needs. Resources such as the STI testing tool and PN postcard were perceived to provide point-of-care information facilitating application of guidelines to clinical scenarios, especially less common clinical situations. The sexual health articles and RACGP's *check*

Table 1. STIPU resources (see <http://stipu.nsw.gov.au/general-practice-resources>)

Resource	Description
GP resources	
STI resources for general practice	An online portal providing: <ul style="list-style-type: none"> • STI information including testing guides • factsheets • support for contact tracing • a resource on youth sexual health
STI testing tool	A4, double-sided guide to sexual health consultations
Drivetime Radio <i>Medical</i> compact disc for STI	An audio resource from the Drivetime Radio <i>Medical</i> program meeting RACGP's QI&CPD standards
Online STI testing tool GP	An online, interactive course on STI testing
Active learning module	Three two-hour interactive modules delivered face to face, aimed to improve knowledge and skills in management of STIs
Sexual health articles	Articles published in <i>Australian Doctor</i> (2009) and <i>Medical Observer</i> (2010) ^{17–19}
RACGP's <i>check</i> program	A case-based learning resource on STIs, as one of these regular monthly RACGP learning programs
Practice nurse resources	
PN postcard	A4, double-sided card providing information concerning: <ul style="list-style-type: none"> • preventative women's health checks • Medicare Benefits Schedule item numbers • sexual health history • screening • management of chlamydia, and contact details for further information
Online STI PN training	An online interactive learning program aimed to increase PN evidence-based sexual healthcare

units were accessed less often, but were highly valued when they were. Resources requiring a greater time commitment, such as the Drivetime CD, online testing tool training, ALM training and online PN training, were more likely to be accessed for later review or teaching purposes.

Interestingly, the PN postcard was seen to legitimise the PN’s role in sexual health care. It was used for patient education purposes, suggesting patient education could be better addressed in future endeavours. Reconsideration of the PN’s role in the delivery of sexual healthcare may well help address organisational barriers to best practice in the general practice environment.¹³

We found a surprising lack of awareness of online resources. The reported value of tools and resources available online, together with GPs’ expressed desire for online access to resources and PNs’ valuing of links to additional information provided by the PN postcard, suggest more work is required in marketing the website. Some interviewees suggested access to information could be enhanced by embedding it in GP clinical software.

Interviewees recommended greater engagement of GP organisations in promoting the resources. This may also assist in facilitating local consensus, peer feedback on performance, and development of individual and group learning plans. These are all noted to contribute to the sort of interactive, ongoing education likely to enhance application of evidence in clinical practice.¹⁴ Engagement of primary health organisations may also provide an opportunity for promotion by opinion leaders, a strategy (particularly in combination with others) suggested to increase compliance with practice guidelines.¹⁶

Implications for general practice

- The STIPU GP project provides an example of best practice GP education, particularly in terms of the range and wide dissemination of resources developed.
- GPs expect transparency in the quality and evidence base of educational materials.

- Access to online resources, while increasingly requested, may require intensive promotion.
- Desktop access to information, including links through commonly used GP software, is likely to enhance usefulness of clinical information.
- Greater application of evidence in Australian general practice may require change in professional roles and organisational processes, including strong engagement with primary healthcare organisations as well as relevant professional organisations.

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Table 2. Document analysis	
GP project attribute	Documentary evidence sought to verify
Methodological rigour	Needs assessment
	Use of research evidence
	Access to clinical expertise
	Use of relevant resources
User friendliness	Discussion in reference group meetings
	Pilot testing
Organisational endorsement	Quality Improvement and Continuing Professional Development point allocation
	Approaches to appropriate professional bodies
Promotion	Endorsement by appropriate professional bodies
	Identification of promotional strategies in planning
Dissemination	Evidence of range of modes of promotion implemented
	Identification of dissemination strategies in planning
	Evidence of range of dissemination strategies implemented

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