



# Prime Minister's Youth Mental Health Project

## E-therapy launch: SPARX - Key messages and Q&A

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**Background:** The launch of SPARX is the roll-out of Initiative Four in the Prime Minister's Youth Mental Health Project - an internet based e-therapy tool for young people to provide treatment that will focus on common anxiety and depression.

### Key messages:

- SPARX has been designed as an E-therapy self-help resource that teaches five behaviours important in protecting against depression – problem solving, being active, positive cognition, social skills, and relaxation.
- SPARX has been found to be an effective treatment in a clinical trial, which tested this form of E-therapy for mild-moderate depression in young people.  
Early results from this randomised controlled trial showed:
  - SPARX was as effective as standard care for youth 12 to 19 years old seeking help for depression; (Standard care in the randomised controlled trial of SPARX was the care young people were given when they sought help for their depression. For most this was usually face to face counselling/therapy comprising on average at least four face-to-face counselling sessions, with each session lasting on average between 30 and 60 minutes.)
  - A direct comparison between those who had SPARX and those who had face to face counselling showed that SPARX was at least as good as the counselling.
  - SPARX reduced depression, anxiety and feelings of hopelessness, and improved quality of life;
  - These changes lasted for at least three months;
  - SPARX worked better for those with more serious depression (but still within mild-moderate range);
  - SPARX worked equally well across different ethnic groups in New Zealand;
  - SPARX worked equally well for girls and boys
  - SPARX worked equally well across the age group of 12 to 19 years;
  - SPARX appeared to work better when users completed at least half of the modules (i.e. at least four levels)
  - Most young people completed at least half of SPARX and this compared very well with other similar programs; and
  - Most participants found SPARX useful, believed it would appeal to other teenagers and would recommend it to their friends.
- SPARX has been designed to fit within a range of depression treatments for young people. Other approaches to treating depression in adolescence include face to face therapy, with evidence for cognitive behavioural therapy and interpersonal therapy, medication and wider work dealing with other stresses in the young person's life, such as family therapy, dealing with bullying, and addressing substance abuse.



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- SPARX complements other work within the Prime Minister's Youth Mental Health Project including school-based health services (Initiative 1), school-based mental health services in Canterbury (Initiative 26) and work in primary care (Initiatives 3 and 5).

## **Questions and Answers:**

### **What is SPARX?**

SPARX is a computer-based E-therapy programme, developed for young people who may be experiencing mild-moderate depression, anxiety or other mental health issues. SPARX has been designed as a self-help resource to teach the key skills needed to help combat mental health issues. It was developed with the help of young people and is based on Cognitive Behavioural Therapy (CBT). CBT teaches skills about how to cope with negative thoughts and feelings by helping people to think in a more balanced and helpful way and getting them to do things they enjoy or that give them a sense of achievement.

### **How does SPARX work to improve the mental health of young people?**

SPARX teaches five behaviours known to be especially important in protecting against depression – problem solving, being active, dealing with negative thoughts, social skills, and relaxation. It delivers the lessons in a very explicit way. Users learn about each of the protective behaviours in an educational component before moving into the fantasy game, and are then encouraged to put the lessons into practice in the real world.

### **What other tools or resources are there for young people?**

SPARX has been designed to fit alongside other approaches to prevent depression and anxiety in young people. These include general support and education about depression and what to do about it. Other approaches to treating depression in adolescence include face to face therapy, with evidence for cognitive behavioural therapy and interpersonal therapy, medication and wider work dealing with other stresses in the young person's life, such as family therapy, dealing with bullying, addressing substance abuse and so on.

### **Is SPARX different to other online treatment programmes?**

There are other computer programmes to help with depression and anxiety, including MoodGYM and The Journal, however these are aimed at an older audience. Other online resources for young people include the Lowdown and the Australian web resource [Bite Back](#), but these are designed to provide education rather than therapy.

Most programmes for depression for young people provide education about what might help. SPARX is unique in that it provides treatment through an interactive programme that looks and feels like a computer game

### **Is SPARX available on tablet or mobile devices?**

The SPARX programme has entered into a partnership with US-based e-therapy company Linked Wellness which plans to further refine the operating platforms SPARX uses, making the therapy available to users on smartphones, tablets and other such channels. The agreement provides the SPARX



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programme a royalty free, perpetual right to use any and all improvements and developments to the programme(s) within NZ and Australia.

## **Is SPARX being used in other countries?**

Young people in rural Australia have tried SPARX out and were positive about the look and feel. There are a number of researchers around the world interested in testing SPARX and there are trials looking at different aspects of SPARX and how it might work that are underway in the Netherlands and the United States. The University of Auckland is also working actively with other groups in the USA, Canada, Australia, Japan and the UK and have had researchers interest from Finland, Saudi Arabia and South Africa

## **What age is SPARX recommended for?**

SPARX is designed for young people between age 12 and 19. It may not be as effective for children younger than 12 children due to the language and comprehension required.

Young males, around the age of 18, may find SPARX less appealing and consider it “too young for them”. The Journal with John Kirwan (currently being tested) may be more appropriate.

The skills developed through using SPARX to manage mood and anxiety are potentially useful for all adolescents/teenagers regardless of whether or not they may be depressed.

## **What does mild to moderate depression mean - why is SPARX recommended for this?**

Mild to moderate depression in young people equates to a low mood which is PERSISTENT and PERVASIVE. The young person feels 'down' most days for much for the time and has done so for a couple of weeks. AND this interferes with their day to day life, but not so much so that they can't function at all. It is a clinical illness and warrants intervention. This is in contrast to feeling a 'bit down' 'here and there' and where this does not get in the way of day to day life.

The skills developed through SPARX will be useful for young people who identify as feeling down, feeling low, stressed or depressed.

The young people in the randomised controlled trial of SPARX were those who reported low mood and wanted help with this. They did not have to meet strict criteria for depressive disorder to participate in the trial. SPARX may also help young people develop resilience and skills to manage life's stresses.

## **Can SPARX help people with varying levels of depression and anxiety?**

In SPARX the terms depression, low mood, feeling down or stressed are used.

Up to three quarters of young people with what would be considered clinically significant depressive symptoms do not get professional help. This cohort of youth was front of mind when developing SPARX.

We have built in a Mood Monitor so that if a young person identifies as severely depressed or has thoughts of self-harm, or is not improving through the program, they get messages encouraging them to get more help, and information on where to access this.



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An onscreen message inside the program gives details of where they can get more help, including if they need help right away, while a message with a link to the “Get Help Now” page on the SPARX website is also displayed on every page of the site. In addition, users who registered their mobile number or email address when they registered for SPARX will receive a text message and/or email prompting them to get more help.

For example:

#### HERE IS YOUR MOOD QUIZ FEEDBACK

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You said you've had a lot of thoughts of hurting yourself or that you'd be better off dead. These thoughts are common when people feel down, angry or really stressed. Please get help now:

If this is an emergency, call 111.

Our '[Get Help Now](#)' section gives you a list of options for where and how to get the support that's right for you. Speak to a counsellor, doctor, youth worker or call a telephone helpline (like [Youthline](#) or [Lifeline](#))

We have partnered up with Youthline and Lifeline to provide clinical back up support to SPARX users who request it. There is a dedicated line (0508 4 SPARX) that is staffed by professional counsellors 12 hours a day 7 days a week. In addition young people are reminded that the emergency 111 number can be used.

Clinical guidelines recommend Cognitive Behavioural Therapy (CBT) or interpersonal therapy (IPT) as the first line in the management of mild to moderate clinical depression, with the option of adding medication in if there is no response.

### **Will SPARX replace counselling and therapy?**

No. It is anticipated that having SPARX available will allow more young people to access help, and will allow services to provide counselling and therapy for those young people who need it most, or who do not want the use computerised therapy. It will increase the range of options available. SPARX should be a good alternative for some young people who are reluctant to seek help or other forms of treatment. It is a valuable tool in a 'therapeutic toolbox'. If the young person or those around them think they need further assistance with their mental health, they are advised to get other help, through GPs, school guidance counsellors, Youthline or Lifeline.

### **What computer systems does SPARX operate on?**

Using SPARX requires internet access and a standard computer or laptop. SPARX runs in a browser (Firefox, Chrome, Opera, Safari, Internet Explorer, etc.) and requires the latest version of the Unity Player plugin to work (an option to download this is provided at the start of the program). SPARX is not yet available for tablets or smartphones.

### **Is SPARX a computer game or therapy?**

SPARX looks like a game but was primarily designed to treat low mood by developing cognitive behavioural therapy skills to help prevent depression and anxiety.



It is important to note SPARX is not designed to be a competitive computer game designed purely for entertainment. It is therapy presented in a game-like format. SPARX is appealing to many young people when compared with counselling, psychotherapy or medication. Feedback from young people in trials of SPARX, who understood SPARX is a treatment rather than a game, was very positive. Most young people in trials of the program completed at least half of SPARX with most participants stating they believed it would appeal to other teenagers and that they would recommend it to their friends.

## **How do young people navigate SPARX?**

At the beginning of each level of SPARX users meet the 'Guide' who provides the context of the program, information about depression and low mood and invites the young person to try the resource out. He provides the context for what is learned in SPARX. If users decide to continue they will then go through a portal into the 'virtual world' of SPARX. In this virtual world the person learns and practices skills in a fantasy environment through an avatar. After that the person again interacts with the Guide to work out how to use the skills in real life. This means SPARX is more like a game than lots of counselling or therapy is, but primarily it's a preventative therapy designed to help people who are feeling down or stressed out.

## **How is the effectiveness of SPARX being tested?**

SPARX was tested in a large study in New Zealand and the results were published in the [British Medical Journal](#) in 2012. In addition, three doctoral projects evaluated SPARX with specific groups of young people.

Between 2009 and 2010 a randomised controlled trial of SPARX was conducted with 187 young people to see if it was effective in treating the symptoms of depression. SPARX as compared with standard care provided to young people with mild to moderate depression e.g., face to face therapy with a counsellor or clinical psychologist.

SPARX led to complete remission (i.e. no depression) in 44% of young people, and a substantial improvement for 66% of young people – this is in line with most studies of treatments of depression in young people. In the study those that had "usual care" – which wasn't only counselling, and was sometimes waitlisted, the remission rate was 26% and the substantial improvement for 58%. When the waitlist group was removed, SPARX looked even better than usual care, which was mostly counselling.

The tests showed that completing 4 out of the 7 modules led to this improvement and 86% of young people completed at this level, while 60% did all 7 modules.

## **What other services are available for young people experiencing depression?**

Please see the list on the following page: <http://www.health.govt.nz/your-health/services-and-support/health-care-services/mental-health-services>

## **Is there a role for parents/whanau to support their child on SPARX?**

While there is no direct way for parents/ whanau to monitor progress on SPARX, parents/whanau who are concerned and who know that their young person is using SPARX can still keep an eye on things.



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They will be able to tell if their young person's mood or irritability is improving, and whether the young person is gradually picking up on their usual day-to-day activities.

Parents, caregivers and whanau can support their children using SPARX in lots of ways. It's really important for young people to know parents are supportive. Parents could ask them what support they would like and could offer to:

- Register for SPARX to try it out and see how it works;
- Do SPARX alongside the person;
- Help them practise skills from SPARX;
- Help them deal with issues that are bothering them;
- Help them to make sure there are fun or positive things in each day.

If parents/whanau are worried that someone who is using SPARX is not getting better they should get more help. It is important that parents/whanau know that SPARX is not a crisis intervention and it's not enough if someone is suicidal. For anyone who is concerned they can get information from the SPARX website about where to get help. Alternatively they could contact their GP or the local mental health crisis services. We will provide information for families/whanau on the web explaining what SPARX does and how they can provide support.

The Prime Minister's Youth Mental Health Project is investing \$62 million over four years on a range of initiatives to improve youth mental health. The SPARX e-therapy initiative has a budget of \$2.7 million over more than three years, which includes the cost of the licence and contract with UniServices, the agency delivering the programme.

### **SPARX resembles a fantasy or role-playing game. Is this likely to appeal to girls or young people not interested in this genre of gaming?**

SPARX is designed for all young people aged 12-19 who want help with feeling down, depressed, worried or stressed. Research showed that SPARX worked equally well for girls and for boys. Although SPARX takes users into a game-like fantasy environment, it is actually a self-help tool that helps users learn and practice skills designed to help people who are feeling down or stressed out.

### **Is the programme supported by the College of Clinical Psychologists? NZ Psychological Society? NZ association of Counsellors?**

Not currently. However, SPARX has been incorporated into a CME points accredited training programme by the GoodFellow Unit at the University of Auckland's School of Population Health.