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An Investigation into the Design, Applicability and Evaluation of a Computerised Cognitive Behavioural Therapy Programme-SPARX for Māori Young People Experiencing Mild to Moderate Depression

Matthew John Shepherd

Abstract

Depression is a major health issue amongst adolescents in New Zealand particularly for Māori. This research is a part of a larger study, in which a Computerised Cognitive Behavioural Therapy programme (CCBT)-SPARX was designed and evaluated. Four studies exploring the design, applicability and efficacy of SPARX for Māori adolescents experiencing mild to moderate depression have been included in this thesis. In study one I investigated the design and content of the CCBT programme from a Māori perspective using a qualitative methodology. Three different groups were interviewed, taitamarki Kapa Haka group (N=8), taitamariki (adolescent) mothers (N=4) and whānau (7 parents and 7 taitamariki). Results revealed that SPARX taught Cognitive Behavioural Therapy (CBT) skills (particularly relaxation), it was like a computer game that helped with depression and the Māori graphics were applicable to taitamariki. In study two I recruited seven taitamariki to complete SPARX (seven modules). The Child Depression Rating Scale-Revised (CDRS-R) and secondary self-rating scales of depression, anxiety and quality of life were administered before intervention, post treatment and at five-month follow up. The mean scores on the CDRS-R dropped substantially to within normal range at post intervention 22.57 (CI=-8.52-36.63, p=.008) and this decrease was maintained at five month follow up 17.71 (CI=0.77-34.66, p=.043). Secondary measures showed statistically significant improvement for anxiety at months two and five and quality of life at months two and five. Both self report questionnaires at months two and five showed high satisfaction levels. In study three, participants completed a semi-structured interview (N=6) at completion of intervention. Taitamariki found SPARX to be helpful because it taught relaxation and cognitive restructuring skills and helped improve mood. The ability to customise the characters with Māori designs appeared to enhance cultural identity. In study four I analysed the Māori
participant data from the main randomised control trial (N=45) comparing SPARX with treatment as usual (TAU). This study confirmed findings from the open trial with initial gains at post intervention (SPARX, -5.13, TAU -6.87) maintained at five month follow up, (SPARX, -5.50, TAU -5.40), and showed that for this cohort SPARX was as effective as treatment as usual. The generalisability is limited by the small sample sizes. These results suggest SPARX is an effective treatment for mild to moderate depression.
Nga Mihi—Acknowledgements

Me hikoi tahi tatou, kia ea ai ki nga taumata.

Let us journey together, so we can all accomplish our purpose.

I wish to thank the Department of Psychology at the University of Auckland for equipping me with the tools to support people. I thank all of my lecturers for their support in what has been an arduous pursuit. I thank the Department of Psychological Medicine at the University of Auckland for the opportunity to be involved in the Computerised CBT programme, SPARX. I wish to acknowledge the following organisations for the scholarships I received, the Henry Rongomau Bennett, (Ministry of Health) and the Tumuaki Karahipi Presidents Scholarship (NZ Psychological Society). Thank you to Kaumatua Rawiri Wharemate and Clinical Psychologist Tania Cargo who have provided ongoing support pertaining to taitamariki and their whānau. Both thesis supervisors, Associate Professors, Sally Merry and Ian Lambie have both been outstanding. Sally Merry has provided a role model for conducting research that has inspired me to pursue this pathway and has supported me unconditionally. Ian Lambie has assisted immensely with my clinical training and has provided ongoing encouragement. Thank you both. To Dr Heather McDowell, Dr Louise Webster and Andrew Thompson, thank you for your tremendous support over the years. To my parents, I would not be who I am today without your input and to my mother who sacrificed so much, your rewards are eternal. To my family, who have made sacrifices, and especially Cath who has believed in me - and I could not ask for more. May we enjoy the fruits of our labour and I hope that our three children will benefit from this process and reach their full potential. To God/Atua, your blessings are never ending. I dared to dream a dream and you have provided for me every step of the way. Nga mihi nui ki a koe mo to aroha, manaaki me manaakitanga. Thank you to you all, I am indeed a blessed man.
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# Glossary of Māori Terms

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<th>Term</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>Atua</td>
<td>God</td>
</tr>
<tr>
<td>Hapu</td>
<td>Sub tribe</td>
</tr>
<tr>
<td>Hinengaro</td>
<td>Mind, intellect, psychology</td>
</tr>
<tr>
<td>Hongi</td>
<td>Greeting process where noses are pressed together to symbolise the joining of breathe and spirit</td>
</tr>
<tr>
<td>Iwi</td>
<td>Tribe</td>
</tr>
<tr>
<td>Kai</td>
<td>Food</td>
</tr>
<tr>
<td>Kapa Haka</td>
<td>Traditional group that performs Māori songs and dance</td>
</tr>
<tr>
<td>Karakia</td>
<td>Prayers</td>
</tr>
<tr>
<td>Kaumatua</td>
<td>Elder, guardian of knowledge and traditions</td>
</tr>
<tr>
<td>Kaupapa</td>
<td>A philosophy incorporating the knowledge, skills, attitudes and values of Māori</td>
</tr>
<tr>
<td>Māori</td>
<td>Indigenous people of New Zealand</td>
</tr>
<tr>
<td>Marae</td>
<td>A designated area of land with buildings on it where Māori meet to gather</td>
</tr>
<tr>
<td>Mau rākau</td>
<td>Training in the skilled use of traditional weapons</td>
</tr>
<tr>
<td>Moko</td>
<td>Tattoo</td>
</tr>
<tr>
<td>Mihi whakatau</td>
<td>Welcome ceremony</td>
</tr>
<tr>
<td>Ngati Tama</td>
<td>Tribe</td>
</tr>
<tr>
<td>Pakeha</td>
<td>New Zealander who is non Māori</td>
</tr>
<tr>
<td>Powhiri</td>
<td>Traditional welcome</td>
</tr>
<tr>
<td>Taiaha</td>
<td>Weapon, similar to a spear</td>
</tr>
<tr>
<td>Term</td>
<td>Translation</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>Taitamariki</td>
<td>Adolescent</td>
</tr>
<tr>
<td>Taranaki</td>
<td>Name for the area of land in and around New Plymouth</td>
</tr>
<tr>
<td>Te ha</td>
<td>Breath</td>
</tr>
<tr>
<td>Te reo</td>
<td>Māori language</td>
</tr>
<tr>
<td>Tikanga</td>
<td>Māori cultural guidelines, values</td>
</tr>
<tr>
<td>Tinana</td>
<td>Body</td>
</tr>
<tr>
<td>Tupuna</td>
<td>Ancestor</td>
</tr>
<tr>
<td>Waiata</td>
<td>Song</td>
</tr>
<tr>
<td>Wairua</td>
<td>Spirit, inner spirit</td>
</tr>
<tr>
<td>Whakapapa</td>
<td>Genealogy, lineage</td>
</tr>
<tr>
<td>Whaikorero</td>
<td>Speech</td>
</tr>
<tr>
<td>Whakawhānaungatanga</td>
<td>Interrelationships between others</td>
</tr>
<tr>
<td>Whānau</td>
<td>Family</td>
</tr>
<tr>
<td>Whānau ora</td>
<td>Healthy Whānau</td>
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