Prosthetics and Orthotics International

What is the cost, impact, and willingness to pay for an Amputee Peer Support Program?

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Abstract

Background: The provision of peer support from those who have already made positive adjustments to amputation is recommended for people incurring a major limb amputation; however, few receive this service.

Objective: From a program perspective, determine the cost, impact, and willingness to pay for an Amputee Peer Support Program.

Study design: Cost analysis.

Methods: Cost of the Amputee Peer Support Program included a cost analysis of program data over a 5-year time horizon (2013–2018) reported in Australian Dollars 2018/2019. Impact and willingness to pay for an Amputee Peer Support Program was determined through surveys of the 3 participant groups: referring health professionals, program volunteers, and program participants.

Results: Over 5 years, there were 793 program participants, serviced by 256 program volunteers, for a cost of $631,497. The cost per program participant was $796. Thirty-eight health professionals, 86 program volunteers, and 12 program participants reported on impact and willingness to pay. The Program was reported to have a positive impact on all participant groups. The themes of access to resources and information and the provision of social and emotional well-being were identified across all 3 groups as being important. All 3 groups reported a higher willingness to pay for the health service (range $113–$450), National Disability Insurance Scheme ($156–$432), and private health insurance ($153–$347), and a lower willingness to pay for the program participant ($23–$49).

Conclusion: Amputee peer support had a positive impact on those receiving and providing the service. Amputee peer support is likely to be a powerful yet inexpensive addition to routine care.

Keywords

amputation, peer support, economic evaluation, willingness to pay

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Background

In Australia, a significant number of people live with limb loss. Within a 5-year period (commencing 2007), more than 35,000 Australians lost lower limbs due to cancer, infection, birth defects, vascular disease, and diabetes, with two-thirds older than 60 years.[1] Although physical rehabilitation is routinely provided postamputation, gaps exist with the provision of psychosocial rehabilitation.[2] Peer support is a key part of psychosocial rehabilitation. The provision of peer support from those who have already made positive adjustments to amputation is recommended for all people incurring a major limb amputation[3]; however, few receive this service and the cost of this service is unknown.

The objective of this study was to determine the cost, impact, and willingness to pay for an Amputee Peer Support Program in the Australian context, by researching the program offered by Limbs 4 Life.

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Methods

This study has been reported according to the Consolidated Health Economic Evaluation Reporting Standards statement.[4] This study received approval through the Monash University Human Research Ethics Committee (Project ID 14839 on December 9, 2018). Participants included referring health professionals, program volunteers, and program participants. Consent was obtained from participants at the start of the survey, where they were required to tick a consent box to allow the survey to progress.

Setting

Limbs 4 Life is the primary national body for people with limb loss and limb deficiency in Australia and was founded as an incorporated charity in 2004. The Limbs 4 Life vision is that "no amputee goes through the process of limb loss alone and has access to an organization that can facilitate their needs." The mission is to provide information and access to support and resources for amputees, their families, and primary caregivers while promoting an inclusive community. The flagship service for Limbs 4 Life is the Amputee Peer Support Program (the "Program") which commenced in 2005 and is the focus of the current research project. Before 2016, the Program was only available in 3 states (Victoria, South Australia, and Tasmania), with an expansion to a national program in early 2016.

Research design

Cost of the Amputee Peer Support Program included a cost analysis of program data over a 5-year time horizon (July 2013 to

June 2018) from a program perspective. Willingness to pay and impact of the Amputee Peer Support Program were determined through surveys to 3 participant groups: referring health professionals, program volunteers, and program participants.

To establish willingness to pay, the survey asked, "We would appreciate your honest opinion regarding the monetary value you would place on the Amputee Peer Support Program. While there is NO intention for participants to pay for access to the program, we are attempting to understand how you would 'value' the program from a monetary perspective. This considers a few different payment options." Followed by "If the participants' health service was to fully cover the cost of participating in the program, what should they pay?" This question was repeated by changing the source of the payment to the National Disability Insurance Scheme (NDIS), the participant themselves, and private health insurance.

Inclusion/exclusion criteria

The cost of the Program study was a 5-year audit of the Program financial statements and activity log (therefore no inclusion/exclusion criteria). Recruitment for the impact and willingness to pay study was through email using the distribution list from the Program database. Program participants were invited provided they met the following criteria: participated in the Program between March to September 2019, aged 18 years or older, and the person has congenital limb length discrepancy or they have had an amputation. Program volunteers were invited provided they met the following criteria: as of March 2019, they were an active volunteer for the Program at the time of the survey and were aged 18 years or older. Referring health professionals (adults aged 18+) were invited provided that as of March 2019, they had referred a patient, on at least one occasion, into the Program. For all 3 participant groups, there were no specific exclusion criteria.

Statistical analysis

The cost analysis was used to report the cost of the Program. A detailed audit enabled real and in-kind costs to be reported over a 5-year time horizon. In-kind costs were assigned a real cost based on current market rates. To calculate total costs, the annual costs across the 5 financial years were inflated by the Consumer Price Index to represent a net present value in the 2018/2019 financial year (AUD$2018/2019). The total costs were divided by the number of program participants who used the Program over the same 5-year time horizon to provide a cost per program participant.

The impact analysis reported the number of responses (content analysis) from the perspective of the health professionals, the program volunteers, and the program participants with the responses then undergoing a thematic analysis. The willingness to pay analysis involved 4 questions in the survey. Values were reported as a mean and range across the 3 participant groups. All analyses were completed in Microsoft Excel.

Results

Program cost

Between July 2013 and June 2018 (5 years), there were 793 program participants. The average age was 57.9 years (standard deviation [SD] ±16.2), and 68% were men (n = 537/793). In 2013/2014 and 2014/2015, there was a similar number of program participants, with 130 and 137, respectively. In 2015/2016, 2016/2017, and 2017/2018, there was an increase in program participants, with 176, 172, and 178, respectively. The timing of this increase is consistent with the Program moving from a Victorian state-based service to a national service.

Across the 5 years, program participants were located in Victoria (n = 457), South Australia (n = 196), New South Wales (NSW) (n = 79), Western Australia (n = 19), Queensland (n = 18), Tasmania (n = 13), Australian Capital Territory (n = 8), and Northern Territory (n = 3). There were more metropolitan visits (n = 671) compared with rural and regional visits (n = 122). Most visits were in an acute hospital (n = 514) or a rehabilitation hospital (n = 150). Most visits were provided postamputation (n = 561) with less preamputation (n = 228) and few for people with a congenital limb deficiency (n = 4). Most people had 1 peer support visit (n = 715) with less having 2 visits (n = 67) or more (n = 11). The Program was serviced by 256 program volunteers who were trained over this time.

Program costs between July 2013 and June 2018 have been itemized in Table 1 where the costs have been reported for each of the 5 financial years. The total cost of the Program over 5 years was $631,497. This is broken down into 5 cost buckets. (1) The volunteer-related direct costs of program volunteer training ($199,148) such as printing, room hire, police checks, staff trainers, staff travel, and volunteer identification materials. (2) The organizational-related direct costs of the program volunteer training ($415,134) such as marketing and communication, phone costs, insurance, IT and database costs, capital costs, and the staff costs to administer the Program. (3) Directs costs for the group programs ($3,783) such as hosting the group sessions. (4) Direct costs for the 1:1 program ($9,522) such as reimbursement for program volunteer costs and handouts/resources for the program participants. (5) In-kind donations of goods and services (in-kind value: $3,909) such as waivered venue hire and catering costs.

The total program cost ($631,497) can be divided by the 793 people who participated in the Program over 5 years to calculate a cost of $796 per program participant.

Impact of the Program—health professionals

Thirty-eight health professionals responded to the questionnaire. Of those who responded, 79% (n = 30) were women and the average age was 40.7 years (SD ±9.67). Health professionals were living in Victoria (n = 22, 73%), NSW (n = 4, 14%), and South Australia (n = 4, 13%). The professions of the respondents were allied health (n = 25, 66%), nursing (n = 9, 27%), medical (n = 3, 8%), and health service administrator (n = 1, 3%). Although 39% (n = 23) of respondents indicated greater than 10 years' experience working with the amputee population, most health professionals have only been referring patients into the Program for 1–3 years (n = 14, 38%). Referring into the Program was performed through the online portal (n = 18, 34%), email (n = 14, 27%), or phone (n = 13, 25%), with most health professionals having referred less than 10 patients into the Program (n = 21, 55%).

The self-reported impact of the Program was provided by the health professionals surveyed. There were 39 statements, and Access (n = 17, 44%) was the most common themed response with access to resources and information (n = 11, 28%) predominantly mentioned. Respondents also identified Support for Health Professionals (n = 16, 41%) as important to them and had an impact on them (Box 1).

Table 1. Costs for the Program from 2013/2014 to 2017/2018 (inflated to NPV 2018/2019).

			2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	Total (each year inflated by the CPI for a 2018/2019 NPV)
Direct costs of volunteer training program	Hosting the volunteer training sessions CATERING	Number of units (number of training sessions)	5	4	3	8	5	
		Cost per unit	Variable	Variable	Variable	Variable	Variable	
		Total cost	$864	$1,185	$950	$2,338	$1,066	$6,714
	Additional printed support for the program volunteers	Number of units		1	1			
		Description		Health literacy guide ($2860) Local support group manual ($1286) Volunteer business cards ($178)	Training manual ($9.30 × 42) and kit bags ($1.39 × 42) Guide ($2.53 × 42)			
		Cost per unit		Variable	Variable			
		Total cost		$4,324	$555			$5,203
	Hosting the volunteer training sessions ROOM HIRE	Number of units (number of training sessions)	5	4	3	6	5	
		Cost per unit	Variable	Variable	Variable	Variable	Variable	
		Total cost	$403	$250	$250	$1,715	$1,015	$3,778
	Postage to the program volunteers	Number of units (number of program volunteers)	1	1	1	1	1	
		Description	Postage	Postage	Postage	Postage	Postage	
		Cost per unit	$6,655	$7,053	$10,622	$11,637	$11,500	
		Total cost	$6,655	$7,053	$10,622	$11,637	$11,500	$49,725
	Printing	Number of units (number of program volunteers)	1	1	1	1	1	
		Description	Printing	Printing	Printing	Printing	Printing	
		Cost per unit	$14,148	$13,845	$28,879	$15,475	$13,700	
		Total cost	$14,148	$13,845	$28,879	$15,475	$13,700	$90,611
	Police checks	Number of units (number of program volunteers)	25	35	42	61	49	
		Description	Police checks	Police checks	Police checks	Police checks	Police checks	
		Cost per unit	$16	$16	$16	$12	$19	
		Total cost	$388	$543	$651	$720	$950	$3,399

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Table 1. Costs for the Program from 2013/2014 to 2017/2018 (inflated to NPV 2018/2019). (Continued)

			2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	Total (each year inflated by the CPI for a 2018/2019 NPV)
	Limbs 4 Life staff providing the training	Number of units (number of program volunteers)	1		1	1		
		Description	General training costs		General training costs	General training costs		
		Cost per unit	$2,276		$5,606	$8,046		
		Total cost	$2,276		$5,606	$8,046		$16,739
	Polo shirts	Number of units (number of program volunteers)	47	35	42	83	49	
		Description	Polo shirts	Polo shirts	Polo shirts	Polo shirts	Polo shirts	
		Cost per unit	$18	$17	$17	$17	$17	
		Total cost	$846	$589	$706	$1,396	$824	$4,578
	General volunteer expenses	Number of units (number of program volunteers)	1	1	1	1	1	
		Description	General	General	General	General	General	
		Cost per unit	$2,829	$550	$1,796	$720	$750	
		Total cost	$2,829	$550	$1,796	$720	$750	$7,060
	Resources for the program volunteers	Number of units (number of program volunteers)	47	35	42	83	49	
		Description	Group handbook	Group handbook	Group handbook	Group handbook	Group handbook	
		Cost per unit	$6	$6	$6	$6	$6	
		Total cost	$259	$193	$193	$457	$270	$1,436
	Resources for the program volunteers	Number of units (number of program volunteers)	47	35	42	83	49	
		Description	Volunteer handbook	Volunteer handbook	Volunteer handbook	Volunteer handbook	Volunteer handbook	
		Cost per unit	$7	$8	$8	$8	$8	
		Total cost	$306	$296	$296	$702	$415	$2,110
	Travel including airfares, accommodation, and airport transfers	Number of units				7	4	
		Total cost				$5,000	$1,650	$6,863
	Other costs associated with the volunteer training program	Number of units		1			Lanyard IDs n = 49 Program volunteers at $2.51 each	
		Cost per unit		$756			$123	$932

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Table 1. Costs for the Program from 2013/2014 to 2017/2018 (inflated to NPV 2018/2019). (Continued)

			2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	Total (each year inflated by the CPI for a 2018/2019 NPV)
Direct organizational costs for the volunteer training program	Marketing and communication—program flyers	Number of units	2,240	2,240	2,240	5,110	5,110	
		Cost per unit	$0.19	$0.19	$0.19	$0.19	$0.19	
		Total cost	$426	$426	$426	$971	$971	$3,359
	Marketing and communication—peer support posters	Number of units	64	64	64	146	146	
		Cost per unit	$1	$1	$1	$1	$1	
		Total cost	$64	$64	$64	$146	$146	$505
	Phone	Number of units	1	1	1	1	1	
		Cost per unit	$3,872	$3,516	$3,946	$4,620	$3,900	
		Total cost	$3,872	$3,516	$3,946	$4,620	$3,900	$20,876
	Insurance	Number of units	1	1	1	1	1	
		Cost per unit	$2,800	$2,587	$2,811	$2,822	$2,580	
		Total cost	$2,800	$2,587	$2,811	$2,822	$2,580	$14,316
	Database	Number of units	1	1		1	1	
		Cost per unit	$1,080	$2,281		$877	$1,700	
		Total cost	$1,080	$2,281		$877	$1,700	$6,242
	IT systems/website	Number of units	1	1			Online Peer Support referral poster and postage n = 146	
		Cost per unit	$2,200	$740			$3	
		Total cost	$2,200	$740			$387	$3,567
	Personally—Admin support, CEO, program manager	Number of units	Susanne Riddington	Susanne Riddington	Fay Keegan/Kylie Franson ($32000) Mel Noonan ($35000)	Fay Keegan/Kylie Franson ($32000) Mel Noonan ($35000)	Mel Noonan/Kylie Franson	
		Cost per unit	$35,000	$35,000	$67,000	$75,000	$75,000	$300,116
	Capital costs (rent)	Number of units	1	1	1	1	1	
		Cost per unit	$7,500	$9,833	$9,564	$14,659	$21,862	$66,153
Direct cost for the peer support sessions—GROUP	Hosting the group sessions (room hire, refreshments, etc)	Number of units (number of group sessions)	AGM/Peer Support Awards, venue hire (318), catering (734)	Melbourne "amputees in motion" project n = 50				
		Cost per unit	$1,052	$300				$1,460
	Hosting the group sessions (room hire, refreshments, etc)	Number of units (number of group sessions)		Brisbane n = 35				
		Cost per unit		$0				$0

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Table 1. Costs for the Program from 2013/2014 to 2017/2018 (inflated to NPV 2018/2019). (Continued)

			2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	Total (each year inflated by the CPI for a 2018/2019 NPV)
	Hosting the group sessions (room hire, refreshments, etc)	Number of units (number of group sessions)		NSW forum n = 65 cost of airfare and accommodation				
		Cost per unit		$855				$913
	Hosting the group sessions (room hire, refreshments, etc)	Number of units (number of group sessions)		Adelaide forum n = 40				
		Cost per unit		$771				$823
	Hosting the group sessions (room hire, refreshments, etc)	Number of units (number of group sessions)		Golf Xmas even n = 25 (balls × $10.00 per person, coach $150.00 × 2 hours)				
		Cost per unit		$550				$587
	Reimbursement of volunteer costs	Number of units (number of program volunteers)						
		Cost per unit						$0
Direct cost for the peer support sessions—1:1	Reimbursement of volunteer costs—fuel costs	Number of units (number of program volunteers)	20	1				
		Cost per unit	$50	$105				
		Total cost	$1,000	$105				$1,196
	Handouts and written resources for the program participants—patient kits	Number of units (number of program participants)	130	137	176	172	178	
		Cost per unit	$10	$10	$10	$10	$10	
		Total cost	$1,245	$1,312	$1,312	$1,694	$1,753	$7,677
	Other	Number of units		$137				
		Description		Images ($265) Pens ($1.10 each × 137) Stress balls ($1.03 × 137) Fact sheets ($0.26 × 137) Info cards ($0.08 ×137)				
		Cost per unit		Variable				
		Total cost		$608				$649

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Table 1. Costs for the Program from 2013/2014 to 2017/2018 (inflated to NPV 2018/2019). (Continued)

			2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	Total (each year inflated by the CPI for a 2018/2019 NPV)
In kind: either products (IT, equipment, printing, etc) or services (people time)	1	Describe the product or service	Adelaide peer training venue hire, pro bono	Brisbane group session n = 35 venue hire/catering	Adelaide volunteer training session—in-kind venue hire	Venue hire × 2	Catering	
		Cost	$100	$1,000	$300	$330	$300	$2,140
	2	Describe the product or service		NSW forum n = 65 venue hire/catering			Venue hire	
		Cost		$500			$165	$701
	3	Describe the product or service		Adelaide forum n = 40 venue/catering				
		Cost		$500				$534
	4	Describe the product or service		GolfXmas event n = 25 venue				
		Cost		$500				$534

AGM, Annual General Meeting; CPI, Consumer Price Index; IT, Information Technology; NPV, net present value; NSW, New South Wales.

Box 1. Self-reported impact of the program on health professionals

Access

It had been difficult to maintain a local area peer support group. It is great to be able to access this resource when required.

A useful resource to be able to offer to patients through lived experience. Being a nonamputee person, I am not able to relate to patients through my own life and therefore find that having a peer support person helps patients with their adjustment.

Support for health professionals

It has helped support the information I and my team provide to the patient.

Great support and back up from the Program that works alongside the "medical" process of the hospital. Patients routinely remark at how helpful and supportive having a support visit was.

Health professionals reported the perceived impact the Program had on their patients (program participants) (Box 2). There were 42 responses because some health professionals provided multiple responses, with the most common theme being Access (n = 18, 43%). All Access-themed responses (n = 18, 100%) centered on access to information and resources and access to the amputee community. Social and Emotional Well-Being was also identified as a theme (n = 14, 33%) with subthemes of emotional support and hope for the future representing 100% of responses (n = 14). Peer Support as a standalone theme was also noted (n = 8, 19%).

Box 2. Health professionals' perceived impact of the program on their patients (program participants)

Access

It is a fantastic initiative. I think it gives them a lot less sense of being alone. So much more powerful than being given general information by a prosthetist. Gives patients hope.

Feeling connected to other amputees. Feeling more informed of their options and what they face during an anxiety provoking time.

Social and emotional well-being

Ability to show patients that others have managed to get on with their lives and return to the community in work, family, and social capacities.

Peer support

Patients feel comfortable talking to a peer support person. They have time to talk about their own experiences as an amputee. As health professionals, we cannot describe how it feels to have an amputation so the patient tends not to discuss how they are feeling with us. When the patient chats to a peer support person, you can see a huge weight of concern released from them.

Program impact: program volunteers

Eighty-six program volunteers responded to the questionnaire (55%, n = 86/156), and 33% (n = 28) were women. The average age of respondents was 59.2 years (SD ±13.7). Most respondents identified that they had been volunteering in the Program for 1–2 years (n = 33, 38%). Of these respondents, most indicated that the time frame between their own amputation and their program volunteering was 5 years or greater (n = 35, 41%), followed by 3–4 years (n = 21, 25%). Program volunteers were living in Victoria (n = 33, 39%), South Australia (n = 16, 19%), NSW (n = 13, 15%), Western Australia (n = 9, 11%), Queensland (n = 6, 7%), Tasmania (n = 4, 5%), and Australian Capital Territory (n = 4, 5%).

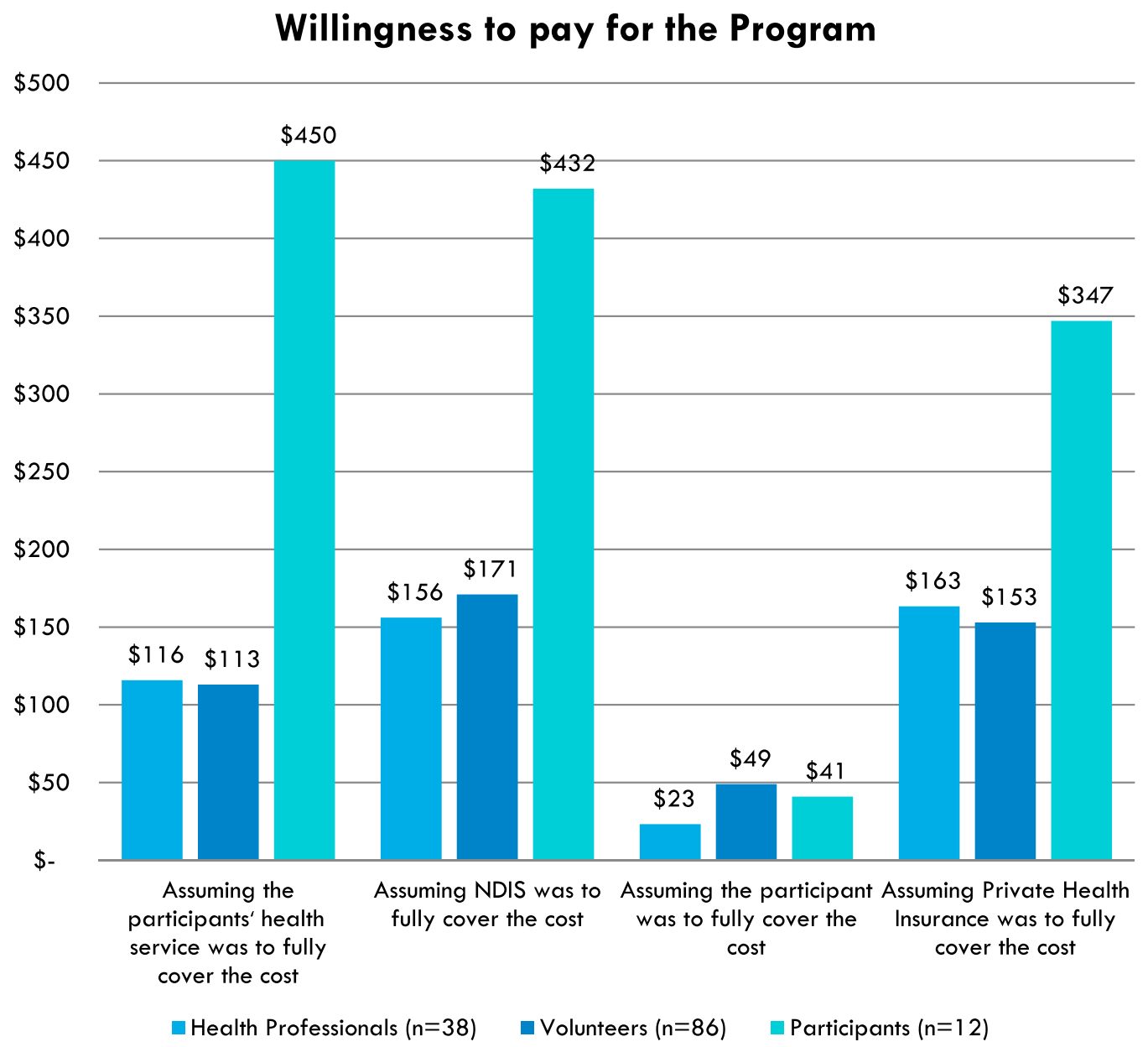

Figure 1. Willingness to pay for the program. NDIS, National Disability Insurance Scheme.

Self-reported data were collected on how the Program affected program volunteers. There were 108 responses, and the most common theme that evolved was Rewarding Experience for Program Volunteers (n = 61, 56%) with subthemes of To Give Back and Rewarding for Volunteer representing all of the count. The second most common theme was Social and Emotional Well-Being (n = 24, 22%) with subthemes of Emotional Support (n = 10, 9%) and Hope for the Future (n = 10, 9%) (Box 3).

Box 3. Self-reported program volunteer impact

Rewarding experience for program volunteers

To give back to an amputee in a fairly difficult environment.

I always wanted to give back to others. Although I received no visits from [amputees] while I was recovering, it was an article in a Limbs 4 Life [magazine] that motivated me. It showed I could get back into golf which I thought was a lost cause. I wanted to spread my fairly positive attitude to others as there is nothing like seeing someone else with a similar or worse disability getting on with life.

I enjoy people. Retired, but independence regained following amputation. Wanted to return the support I had received. Personal and professional experiences in teaching, palliative care, grief, death of a son, and aged care indicated I may have skills which could benefit others.

Social and emotional well-being

I wanted to help other people going through a similar experience to help make it more understandable and give them some hope of an improved life ahead.

I have been an amputee for over 20 years and well remember that there was not anyone to talk to when I became an amputee which meant I was left to find my own way for some time.

Program volunteers reported the perceived impact the Program has on program participants. Of the 107 responses, Rewarding Experience for Program Volunteers was the dominant theme (n = 54, 50%) with Rewarding for Program

Volunteer (n = 50, 48%) subtheme standing out. Responses supporting the theme of Social and Emotional Well-Being was the second most common outcome (n = 26, 24%) with subtheme of Emotional Support Impacting Program Volunteers (n = 15, 14%) (Box 4).

Box 4. Program volunteers' perceived impact of the program on program participants

Rewarding experience for program volunteers

The program has given me a boost in self-esteem and pride that I am able to help new amputees in their journey.

Volunteering is most rewarding. A feeling of satisfaction of helping a person with a similar disability or likelihood of becoming an amputee.

Social and emotional well-being

A sense of helping other folk at a difficult time in their life. A visit with an amputee was an excellent help for me so I was happy to do likewise for other people.

There are people out there worse off than you are. Being able to help people is a wonderful feeling. I wish that peer support was available when I had my leg amputated 40 years ago.

Program impact: program participants

Twelve program participants responded to the questionnaire after participating in their peer support visit (73% [n = 8] were men, average age was 70.2 years [SD ±6.3]). Participants were from Victoria (42%, n = 5/12), NSW (25%, n = 3/12), South Australia (17%, n = 2/12), and Tasmania (8%, n = 1/12), with one location unknown.

Only the 12 program participants who completed the survey postpeer support visit could report on willingness to pay and the impact of the Program on themself. Seventy-five percent (n = 9/12) of program participants who completed the survey postpeer support visit felt that their program volunteer demonstrated a listening ear and sharing of the lived experience. Five program participants (n = 5/12, 42%) felt that participation in the Program gave them access to an organization that understood their unique experience. The expectations that program participants had on joining the Program were centered primarily on gaining information, seeking support, and sharing of the lived experience (Box 5).

Box 5. Program participants' impact of the program on themself

Gaining information, seeking support, and sharing of the lived experience

To have a person having experienced what I am going through to discuss and get guidance from.

Impact has been to discuss and derive ideas from a person who has experienced similar situations as mine and understands actions he has taken to overcome issues I am dealing with.

Willingness to pay

Health professionals, program volunteers, and program participants were asked to report their willingness to pay for the Program from a number of different perspectives (Figure 1; reported in AUD$2018/2019). All 3 groups presented a similar pattern with a higher willingness to pay for the government-funded health service (range $113–$450), NDIS (range $156–$432), and private health insurance (range $153–$347) and a lower willingness to pay for the individual program participant (range $23–$49). Program participants most closely approximated the true cost of the Program per program participant ($796) with their willingness to pay from the perspective of the health service ($450), NDIS ($432), and private health insurance ($347).

Discussion

There is at present an abundance of case study evidence in the form of case studies where peer support has positively contributed to the outcomes for patients and their families transitioning through limb loss.[3,5,6] Although physical rehabilitation is routinely provided postamputation, gaps exist with the provision of psychosocial rehabilitation.[2,7] Peer support is a key part of psychosocial rehabilitation. The provision of peer support from those who have already made positive adjustments to amputation is recommended for all people incurring a major limb amputation[3]; however, few receive this service. Peer support has the potential to inexpensively improve health outcomes and lower cost, and this requires greater research.

In this case, the Program was reported to be of positive value to all groups. Themes of access to resources and information and the provision of social and emotional well-being were identified across all 3 groups as being significantly important and positively achieved. The sharing of the lived experience between a program volunteer and program participant provided a sense of belonging and connection and confirmed that the program volunteers were in a strong position to understand the challenges faced after an amputation. This assisted the program participants in coping with various challenges and possibly eased the adjustment process. The findings highlight benefits in providing peer support and suggest that such support may prove to be a powerful and inexpensive addition to routine care.

There is a paucity in the literature for robust economic evaluations of peer support programs, including such programs for people after a limb amputation. This type of evaluation is essential in securing short-term and long-term funding for programs.[8] Other peer support services have been shown to be cost-effective, for example, diabetes peer support[8]; however, it is acknowledged that economic evaluations into peer support are limited in scope and methodology.[9,10]

The current evaluation explored the cost of the Program to determine the cost per program participant ($796). Presently this cost is borne by Limbs 4 Life through fundraising, which is a significant financial liability for such a valid service. Consideration could be given to explore different payment models. Although options include payment through the health services, NDIS, and private health insurance, Limbs 4 Life does not advocate for payment from program participants. These payment options may prove difficult as health services have been affected by the state-based disability service funding being transferred to the federal government to contribute to the cost of NDIS. National Disability Insurance Scheme may prove difficult due to a time-lapse between the amputation (point of peer support visit) and when an NDIS

plan is activated. Finally, in Australia there are no private health insurance policies known to the research team who reimburse for the cost of peer support (personal communication with a Commonwealth Ombudsman representative in December 2019 through the website https://www.privatehealth.gov.au/). However, it is apparent that access to the Program and keeping volunteer peer supporters is a barrier to using peer support. The authors propose that access to funds, including charging health insurers for the program, could establish funding for a program coordinator or payment to the volunteers to maintain program consistency and ensure the benefits of the program are delivered to people with a limb length discrepancy.

Health professionals, program volunteers, and program participants were all asked to report their willingness to pay from 4 perspectives. All 3 groups presented a similar pattern, with a higher willingness to pay through the health service, NDIS, and private health insurance, and a lower willingness to pay through the program participant. It was the program participants who most closely approximated the true cost of the Program per program participant ($796) with their willingness to pay from the perspective of the health service ($450), NDIS ($432), and private health insurance ($347). The findings from the willingness-to-pay analyses place a strong financial value on the service.

Conclusion

The findings highlight that amputee peer support have a positive impact on those receiving and providing the service. The themes of access to resources and information and the provision of social and emotional well-being were identified across all 3 groups as being important. Amputee peer support is likely to be a powerful yet inexpensive addition to routine care.

Ethics and trial registration

This study received approval through the Monash University Human Research Ethics Committee (HREC Project ID 14839 on 12-09-2018). As this was not a clinical trial, it did not undergo trail registration.

Author contributions

N.B., S.F., and N.W. were involved in the study conceptualization; N.B. and S.F. were involved in data curation, formal analysis; M.N. was involved in the funding acquisition and commissioned the research; N.B., S.F., and N.W. were involved in the investigation, methodology, project administration, resources, software, supervision, and preparation of the evaluation report on which this manuscript is based; N.W., M.N., N.B., F.W., and S.F. were involved in the validation, visualization, and writing (original draft, review and editing) of this manuscript.

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Declaration of conflicting interest

One Board member, Author C, contributed to the authoring and reviewing of the manuscript but not involved in the initial evaluation as she is a current member of the Limbs 4 Life Board. The remaining authors disclosed no potential conflicts of interest about the research, authorship, and/or publication of this article.

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Supplemental material

No supplemental digital content is available in this article.

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