Spine

SPINE Volume 42, Number 3, pp E169–E176

Individualized Physical Therapy Is Cost-Effective Compared With Guideline-Based Advice for People With Low Back Disorders

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Study Design. A cost-utility analysis within a randomized controlled trial was conducted from the health care perspective.

Objective. The aim of this study was to determine whether individualized physical therapy incorporating advice is cost-effective relative to guideline-based advice alone for people with low back pain and/or referred leg pain (≥6 weeks, ≤6 months duration of symptoms).

Summary of Background Data. Low back disorders are a burdensome and costly condition across the world. Cost-effective treatments are needed to address the global burden attributable to this condition.

Methods. Three hundred participants were randomly allocated to receive either two sessions of guideline-based advice alone (n = 144), or 10 sessions of individualized physical therapy targeting pathoanatomical, psychosocial and neurophysiological factors, and incorporating advice (n = 156). Data relating to health care costs, health benefits (EuroQol-5D) and work absence were obtained from participants *via* questionnaires at 5, 10, 26, and 52-week follow-ups.

Results. Total health care costs were similar for both groups: mean difference $27.03 [95% confidence interval (95% CI): -200.29 to 254.35]. Health benefits across the 12-month follow-up were significantly greater with individualized physical therapy: incremental quality-adjusted life years = 0.06 (95% CI: 0.02–0.10). The incremental cost-effectiveness ratio was $422 per quality-adjusted life year gained. The probability that individualized physical therapy was cost-effective reached 90% at a willingness-to-pay threshold of $36,000. A saving of $1995.51 (95% CI: 143.98–3847.03) per worker in income was realized in the individualized physical therapy group relative to the advice group. Sensitivity and subgroup analyses all revealed a dominant position for individualized physical therapy; hence, the base case analysis was the most conservative.

Conclusion. Ten sessions of individualized physical therapy incorporating advice is cost-effective compared with two sessions of guideline-based advice alone for people with low back disorders.

Key words: cost-utility, economic evaluation, low back pain, physical therapy.

Level of Evidence: 2

Spine 2017;42:E169–E176

Low back disorders (LBDs) are a prevalent, costly, and burdensome health condition across the world. In the Global Burden of Disease Study, low back pain ranked in the top six health conditions globally for disability-adjusted life years, and was the highest ranked condition in both the Australasian and Western European regions.[1,2] People with LBDs in western countries commonly seek health care,[3,4] with direct health care costs attributable to LBDs being estimated in the billions of dollars annually in the United States of America, the United Kingdom, Europe, and Australia.[5,6] The high cost and disease burden associated with LBDs are predicted to rise in future years.[1,2] Treatments are needed that are effective at improving clinical outcomes such as pain and activity at a sustainable cost.[7]

Advice from health professionals in primary care regarding a favorable prognosis and the benefits of resuming normal activities is recommended in clinical practice

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Acknowledgment date: March 16, 2016. First revision date: April 28, 2016. Acceptance date: May 25, 2016.

The manuscript submitted does not contain information about medical device(s)/drug(s).

LifeCare Health was an industry partner that provided in-kind contribution (facilities, personnel and resources) to allow treatment of participants free of charge.

Relevant financial activities outside the submitted work: consultancy, employment, royalties, payment for lectures, payment for development of educational presentations.

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DOI: 10.1097/BRS.0000000000001734

guidelines for the management of LBDs.[8] Advice is a low-cost intervention, is effective for improving return to work outcomes,[9,10] and is a common treatment choice by medical practitioners[11] and physical therapists.[12] The cost-effectiveness of advice was found to be inconclusive in a systematic review due to mixed results among included studies.[7]

The Specific Treatment of Problems of the Spine (STOPS) trial was a randomized controlled trial that compared two genuine treatment choices for people with LBDs: individualized physical therapy and advice (IPT) *versus* guideline-based advice alone.[13,14] The primary results of the trial showed that IPT produced faster improvement in back pain and leg pain (5, 10, and 26-week follow-ups), as well as faster and sustained improvement in activity limitation (10, 26, and 52-week follow-ups).[14] Given that the inherent cost of delivering IPT (10 sessions) was higher than advice (two sessions), consideration as to whether the larger effects were worth the additional cost is imperative. The aim of the current study is to investigate the cost-effectiveness of IPT *versus* advice in people with LBDs enrolled in the STOPS trial.

MATERIALS AND METHODS

The randomized controlled trial methods and results have been reported previously.[13,14] Briefly, participants were eligible if they were aged 18 to 65 years, had noncompensable low back pain and/or referred leg pain of 6 weeks to 6 months duration, were fluent in English, and belonged to one of five LBDs subgroups being targeted in the trial.[14]

Randomization and Concealment

Volunteers were sought *via* public advertising and health care practitioner referrals. A total of 300 eligible and consenting participants were randomly allocated (*via* a remote randomization service) to receive either IPT or guideline-based advice. A randomization sequence was generated using a web-based program by a researcher not involved in screening, enrolling, or allocating participants. Block randomization (random block sizes) with stratification for subgroup (five levels) and treatment center (16 levels) was used. An offsite randomization service then allocated treatment. Blinding of participants and therapists was not possible, but data entry was performed by a researcher who was blinded to treatment allocation.

Treatments

Treatment was delivered by 19 physical therapists across 16 centers throughout Melbourne, Australia. Guideline-based advice involved 2 x 30-minute advice sessions over a 10-week period on the basis of the approach described by Indahl *et al.*[15] This included an explanation of the hypothesized pathoanatomical source of the participant's pain, reassurance regarding the likely favorable prognosis of their condition, advice to remain active, and instruction regarding correct lifting technique. The IPT group received 10 x 30-minute sessions of physical therapy over a 10-week period that incorporated similar advice. IPT treatment was firstly individualized on the basis of the five subgroups, four of which were pathoanatomical and one based on psychosocial risk factors.[14] Further individualization was then achieved within each subgroup on the basis of each participant's barriers to recovery. Full details of the IPT treatment protocols have been published previously.[13,16–19]

Economic Study Design

A within-trial cost-utility analysis was conducted from the health care perspective, including Australian Government and private health care resources relating to LBDs.[20,21] The period of resource use for each participant was from the time of enrolment in the trial to the 12-month follow-up, which included the prescribed treatment and any cointerventions.

Health Care Utilization and Costs

Health care costs were incurred between April 28, 2009 (date of first participant enrolment) and April 16, 2013 (date of 12-month follow-up for the final participant). Health care resource utilization was obtained *via* standardized follow-up questionnaires mailed to participants at 5, 10, 26, and 52-week postrandomization. Public health care unit costs were obtained from standard rates published by Australian Government agencies: the Australian Pharmaceutical Benefits Scheme (prescription medication),[22] Australian Government Medicare Benefits Schedule (injections),[23] and Australian Refined Diagnosis Related Groups data (surgical costs).[24] Private health care unit costs were obtained from an online pharmacy website (nonprescription medication), and average health care consultation rates (obtained from the relevant professional body or a random sample of three providers within representative locations involved in the trial).[25] Cost data were standardized to 2014 US$, with currency conversions based on a Purchasing Power Parity of 1.54 Australian dollars per US$.[26] Where unit cost estimates for health resources were from pre-2014, they were inflated using the Total Health Price Index from the Australian Institute of Health and Welfare before currency conversion.[27] As the time horizon was 12 months and no future projection was attempted, discounting was not applied.[28] A full list of unit costs used in the analysis is provided in Table 1.

Health Outcomes

Health-related quality of life was measured using the EuroQol-5D.[29] This was completed by participants at baseline and at 5, 10, 26, and 52-week postrandomization. Validated algorithms were used to generate health state utilities between 1.0 (perfect health) and −0.594 (worst health).[30] The EuroQol has demonstrated good reliability and validity across a range of health conditions including LBDs.[31]

Work Outcomes

The costs associated with work absence were considered separately to health care costs.[20] Participants provided information on work absence over the previous month on

TABLE 1. Unit Prices for Key Health Care Resources

Resource	Unit Cost ($US)	Source
Physiotherapy consultation		Australian Physiotherapy Association Price survey
Initial	$49.25	
Subsequent	$42.07	
Medical consultations		Random sample of three practices within representative trial locations
General practitioner	$40.05	
Spinal surgeon		
Initial	$116.88	
Subsequent	$61.69	
Specialist physician		
Initial	$159.47	
Subsequent	$89.48	
Medical intervention		
Surgery (discectomy)	$5264.13	Australian Refined Diagnosis Related Groups data
Injections (CT-guided epidural)	$123.31	Australian Government Medicare Benefits Schedule
Nonmedical consultations		
Chiropractic		Chiropractors Association of Australia Price survey
Initial	$57.08	
Subsequent	$34.55	
Osteopathy		Random sample of three practices within representative trial locations
Initial	$69.27	
Subsequent	$55.19	
Massage	$51.51	
Acupuncture	$53.03	
Other therapist	$54.87	
Group classes (*e.g.*, Pilates, yoga)	$14.47	
Medication		
Prescription	Individual	Australian Government Pharmaceutical Benefits Scheme
Nonprescription	Individual	Online pharmacy website

CT indicated computed tomography.

outcome questionnaires completed at 5, 10, 26, and 52-week postrandomization. The average weekly earnings associated with each participant's declared occupation were obtained from Australian Government data.[32]

Statistical Analysis

Analyses were undertaken using SPSS-V21: IBM Corp. (Armonk, NY) and Microsoft Excel (Redmond, WA). Analysis was *via* intention to treat, with imputation used for missing data. First, partially missing information relating to health care resource utilization was replaced with relevant averages (*e.g.*, if a participant indicated that they consumed Paracetomol but did not indicate the dosage, then the average dose was imputed from all other participants in that treatment group at that timepoint). Fully missing data (such as participants who failed to return a questionnaire, missed an item of the EuroQol, or who failed to answer a complete question) were handled *via* multiple imputation (five imputed data sets).[28,33] Between-group differences in costs were calculated *via* linear mixed models.

For health outcomes, each participant's time-weighted average EuroQol utility score across the full 12-month study period was calculated *via* the area under the curve method.[34] This yielded health outcomes expressed as quality-adjusted life years (QALYs), with one QALY equivalent to one year of life spent in perfect health. The mean between-group difference in QALYs was then derived from a linear mixed model adjusting for baseline scores, using the multiply imputed data sets. Mean between-group differences in health care and work costs were also derived from linear mixed models on the basis of the imputed data sets. These analyses yielded incremental costs and incremental health benefits. The incremental cost-effectiveness ratio (ICER) was then derived by dividing the incremental cost by the incremental QALYs, which indicates the cost to gain one additional QALY.[28,35]

To assess uncertainty around the ICER, nonparametric bootstrapping was applied using a customized Microsoft Excel spreadsheet.[36] This involved generating 5000 randomly resampled data sets (1000 samples for each of the five imputed data sets).[20] Each of the 5000 bootstrapped cost-utility pairs were then graphed on the cost-effectiveness plane.[35–37] A cost-effectiveness acceptability curve was then generated to determine the probability that IPT was cost-effective compared with advice at different willingness-to-pay thresholds,[35,37] noting a typical US$ willingness-to-pay threshold of $62,000 for one QALY gained.[38]

Sensitivity and Subgroup Analyses

Sensitivity analyses were undertaken to determine the influence of study perspective and analysis decisions on results. A complete case analysis was performed, which included only those participants with full cost utilization data and EuroQol data at every time-point. An analysis from the partial societal perspective was also performed, incorporating work absence costs (although without other societal costs).[39]

Identifying cost-effectiveness in subgroups identified *via* pre-planned effect modification studies can be helpful for guiding decisions about implementation.[28,40] Our pre-planned effect modifier study found that IPT was most effective relative to advice in participants with higher baseline Orebro scores (indicative of a higher risk of developing persistent pain), higher back pain scores, and longer duration of symptoms (manuscript under review). We therefore hypothesized that IPT would be particularly cost-effective compared with advice in these subgroups.[28]

RESULTS

The primary randomized controlled trial found that IPT was more effective than advice for improving activity limitation at 10, 26, and 52-week follow-ups, and for reducing back and leg pain at 5, 10, and 26-week follow-ups.[14] All participants received treatment as allocated, aside from one advice participant who did not commence treatment due to a motor vehicle accident immediately after randomization.[14]

Complete cost data were available for 254 (85%) participants, while 238 (79%) had complete EuroQol data across the full 12-month study period. For the complete case analysis, 237 (79%) randomized participants had full EuroQol and cost data at all time-points. Multiple imputation allowed all 300 participants to be included in the primary intention to treat cost-effectiveness calculations.

Health Care Costs

Back-related health care utilization and costs per patient are presented in Table 2. The average cost of the primary physical therapy intervention in the trial was $379.35 in the IPT group and $81.93 in the advice group [significant between-group difference $297.72; 95% confidence interval (95% CI): 282.85–312.01]. IPT participants incurred significantly lower nonmedical treatment consultation costs outside of the trial (between-group difference $172.09; 95% CI: −264.94 to −79.25), particularly for chiropractic/osteopathy, massage, and group exercise classes (Table 2). When considering total health care costs within and outside the trial, there was no significant difference between the groups: $27.03 (95% CI: −200.29 to 254.35).

Health Outcomes

Analysis of EuroQol utility scores showed that health benefits were significantly greater in the IPT group relative to the advice group across the 12-month follow-up period: incremental QALYs = 0.064 (0.024–0.104) (Table 3).

Cost-Utility

The ICER for the primary base-case analysis was $422.08 per QALY gained. Of the 5000 bootstrapped cost-utility pairs graphed on the cost-effectiveness plane (Figure 1), 77.4% were in the north-east quadrant (IPT more effective and more expensive), while 15.7% were in the south-east quadrant (IPT more effective and less expensive). The cost-effectiveness acceptability curve (Figure 2) indicated that the probability of IPT being cost-effective reached 90% at a willingness-to-pay threshold of $36,000.

Work Absence

Table 4 summarizes back-related work absence data in workers who were employed immediately before their episode of low back pain commencing. Workers in the IPT group missed significantly fewer work days than the advice group over the 12-month follow-up period: mean between-group difference = −9.6 (−19.3 to −0.03) days. Costs associated with work absence were significantly lower in the IPT group relative to the advice group: $-1995.51 (95% CI: −3847.03 to −143.98). The incremental cost in this population of workers was $105.88 (95% CI: −160.08 to 378.27) higher in the IPT group, equivalent to a cost of $11.03 per work day gained.

Sensitivity and Subgroup Analysis

Table 5 presents sensitivity and subgroup analyses. The primary base case (imputed) analysis was the most conservative, with all other sensitivity and subgroup analyses indicating a dominant position for IPT over advice (IPT more effective and less expensive). IPT was particularly cost-effective in participants who were above the median score at baseline for back pain, Orebro score, and duration of symptoms.

DISCUSSION

Individualized physical therapy incorporating advice was cost-effective relative to guideline-based advice alone for people with LBDs. Although the administration of 10 sessions of individualized physical therapy was more expensive

TABLE 2. Back-Related Health Care Utilization and Costs Per Patient

Resource	Resource Use: Units/Patient (SD), % of Patients Utilizing		Cost/Patient (SD) in US$		Between-Group Cost Difference (95% CI)*
	IPT	Advice	IPT	Advice	
Study physical therapy	8.9 (2.1), 100%	1.8 (2.4), 99%	379.35 (87.10)	81.93 (18.46)	**297.72 (282.85–312.01)**
Medical consultations					
General practitioner	1.3 (4.3), 30.6%	1.6 (3.5), 35.4%	53.34 (172.55)	62.41 (141.52)	−9.07 (−46.69 to 28.56)
Spinal surgeon	0.2 (0.6), 8.8%	0.2 (0.6), 10.0%	15.29 (57.00)	18.18 (59.34)	−2.90 (−16.67 to 10.88)
Specialist physician	0.2 (1.1), 4.1%	0.3 (1.1), 8.5%	18.32 (114.19)	29.96 (115.69)	−11.64 (−38.87 to 15.59)
Total	1.7 (5.3), 32%	2.0 (4.2), 40%	86.95 (280.78)	110.55 (238.03)	−23.61 (−85.61 to 38.40)
Medical intervention					
Surgery (discectomy)	0.01 (0.08), 0.7%	0.02 (0.12), 1.5%	35.81 (434.18)	80.99 (650.40)	−45.18 (−174.68 to 84.32)
Injections	0.1 (0.3), 3.4%	0.1 (0.5), 7.7	5.87 (36.32)	13.82 (56.10)	−7.95 (−19.01 to 3.10)
Non-medical consultations					
Physical therapy (outside study)	0.8 (2.5), 17.0%	1.4 (3.8), 23.1%	35.62 (105.75)	62.35 (164.51)	−26.74 (−59.09 to 5.61)
Chiropractic / Osteopathy	0.6 (2.4), 11.6%	1.9 (5.7), 22.6%	31.34 (114.84)	83.94 (223.24)	**−52.60 (−93.92 to −11.29)**
Massage	1.1 (2.7), 19.7%	2.1 (4.9), 33.1%	54.14 (140.00)	106.87 (253.37)	**−52.73 (−100.44 to −5.02)**
Acupuncture	0.3 (1.2), 8.8%	0.4 (1.3), 11.5%	18.55 (66.90)	21.43 (68.86)	−2.88 (−18.95 to 13.20)
Other therapist	0.1 (0.6), 4.1%	0.2 (0.9), 3.8%	4.03 (20.26)	8.47 (48.76)	−4.44 (−13.09 to 4.21)
Group classes (eg. Pilates, yoga)	0.3 (2.6), 2.0%	2.0 (6.5), 10.8%	8.69 (67.99)	41.40 (136.97)	**−32.70 (−57.85 to −7.56)**
Total	3.3 (6.3), 38.8%	7.9 (12.3), 60.8%	152.38 (292.15)	324.47 (480.14)	**−172.09 (−264.94 to −79.25)**
Medication					
Prescription	18.5%	26.1%	24.82 (110.25)	41.22 (139.70)	−16.40 (−47.33 to 14.54)
Non-prescription	51.1%	43.7%	35.05 (81.56)	43.84 (136.29)	−8.79 (−36.18 to 18.60)
Total	57.0%	54.6%	59.87 (140.54)	85.60 (207.93)	−25.73 (−69.16 to 17.69)
Total cost (using imputed data set)			782.82 (623.82–941.82)	755.79 (592.84–918.75)	27.03 (−200.29 to 254.35)

Number with full data was for study physical therapy IPT = 156 (100%), advice = 144(100%); for other interventions IPT = 147(94%), advice 130 (90%); for medication IPT = 135(87%), advice = 119(83%).

IPT indicates individualized physical therapy; SD, standard deviation.

Between-group comparisons analyzed via linear mixed models, with positive values representing a higher cost in the IPT group relative to the advice group, significant between-group differences in bold.

than two sessions of advice alone, this was offset by lower cointervention costs and greater health benefits (QALYs) in the IPT group. The base case ICER of $422 per QALY gained was well below the willingness-to-pay threshold of $62,000 per QALY gained. There was a 90% probability that IPT was cost-effective at a willingness-to-pay threshold of $36,000. The results of the base case analysis were conservative compared to sensitivity and subgroup analysis, which all yielded dominant cost-effectiveness positions (IPT less expensive and statistically significantly more effective).

Significant societal benefits from receiving IPT relative to advice were also found on the basis of lower work absence rates and associated income savings in the IPT group. LBDs are a leading cause of work absence throughout the world,[2] so any treatments that can reduce work absence in this population are welcome. Another compelling finding was the subgroup analyses showing that IPT was even more cost-effective in participants with longer duration of symptoms, higher initial back pain scores, and higher Orebro scores. These findings are particularly useful because people with

TABLE 3. Health Outcomes Over the 12-Month Follow-Up Period

	Individualized Physical Therapy	Advice	Mean Between-Group Difference (QALYs Gained)
EuroQol utility score across 12 months*	0.768 (0.741–0.795)	0.704 (0.676–0.732)	0.064 (0.024–0.104), $P = 0.002$

QALY indicates quality-adjusted life year.

Generated by an area under the curve calculation for each patient from EuroQol utility scores at baseline, 5, 10, 26, and 52 weeks, with between-group differences calculated by a linear mixed model adjusting for baseline EuroQol score. Multiple imputation was used for missing data. Positive between-group difference indicates higher quality of life in the IPT group relative to the advice group.

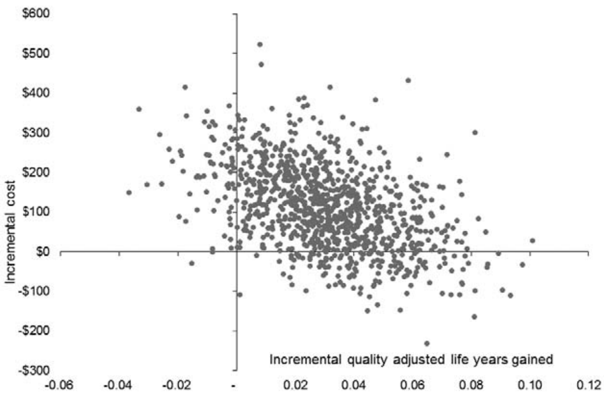

Figure 1. Cost-effectiveness plane comparing individualized physical therapy to advice.

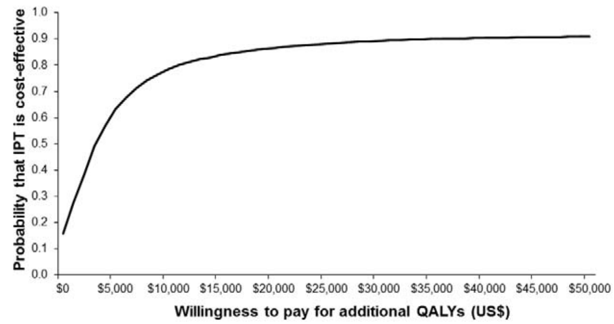

Figure 2. Cost-effectiveness acceptability curve for individualized physical therapy compared with advice.

LBDs who have these characteristics are known to have a worse prognosis and incur the highest costs.[5,41,42]

These findings compare favorably to other relevant studies in the field. One study obtained an ICER of US$2773 (inflated to 2014) per QALY gained for group cognitive-behavioral therapy along with advice *versus* advice alone.[43] Our study obtained an ICER of $422 per QALY despite the higher cost of providing individualized one-on-one physical therapy sessions rather than the group therapy administered by Lamb *et al*.[43] In another relevant study, five sessions of physical therapy were not cost-effective compared with one session of advice due to no significant differences in health outcomes or total costs between groups, although the ICER of US$5328 (inflated to 2014) per QALY gained suggested a trend toward physical therapy being cost-effective.[44]

These results build upon the cost-effectiveness analysis alongside the STarT Back trial.[20] In STarT Back, physical therapy individualized according to risk profile was found to be more effective and less expensive than standard care. The incremental health benefits (QALYs) in our study of 0.064 in the whole cohort and up to 0.112 in higher-severity subgroups compared favorably with those reported in STarT Back (0.039 in the whole cohort and up to 0.057 in the high-risk subgroup). The combined cost-effectiveness results of STarT Back and our study suggest that individualized physical therapy (either according to risk stratification or pathoanatomical subgrouping) appears to be highly cost-effective for LBDs when compared with either advice or standard care.

This study had several strengths. The availability of complete data for 79% of participants combined with the use of multiple-imputation for missing data increases confidence in the validity of the results. Findings were consistent across all sensitivity and subgroup analyses, with the primary analysis yielding the most conservative estimate. The study design and analysis was in accordance with methodological guidelines for cost-effectiveness studies.[21,28,35] Recruitment of participants largely from the community and administration of treatment by 19 physical therapists across 16 treatment centers increases the generalizability of findings. The treatment protocols have been published,[13,16–19] and it is likely that most physical therapists could apply the protocols in clinical practice. A limitation of our study is that we did not collect data regarding radiological imaging utilization. However, given the higher rate of medical practitioner attendance and medical/surgical interventions in the advice group, it is unlikely that imaging costs would have been significantly lower in that group.

The significant burden of LBDs on individuals, society, and governments is a worldwide problem.[2] Although no one treatment will offer a global solution for a condition as broad as LBDs, the emergence of trials such as STOPS and STarT Back is an encouraging starting point for identifying interventions that are not only effective at reducing work absence and disease burden but also doing so in a cost-effective manner. Given that the costs and disease burden of LBDs are predicted to rise further in future years,[1,2] these results are timely.

CONCLUSION

Individualized physical therapy along with guideline-based advice is cost-effective relative to guideline-based advice alone for people with LBDs. Ten sessions of individualized physical therapy result in similar total health care costs compared with two sessions of advice, while individualized physical therapy leads to significantly greater health benefits and income savings from lower work absence.

➢ Key Points

- ❑ Ten sessions of individualized physical therapy are cost-effective compared with two sessions of guideline-based advice in people with low back disorders.
- ❑ People receiving individualized physical therapy rather than advice incur lower costs relating to cointerventions and lost income, while also achieving superior outcomes.
- ❑ These findings add to existing evidence for superior clinical outcomes favoring individualized physical therapy over advice for low back disorders.

TABLE 4. Work Absence Data

Work Absence Measure	IPT (n = 129)	Advice (n = 101)	Difference Between Groups
Number (%) with any back-related work absence throughout 12 months	46/129 (35.7%)	44/101 (43.6%)	RR = 0.82 (0.59–1.13)
			RD = −7.9% (−20.3% to 4.7%)
Number of work days absent due to low back disorder: Mean (95% CI) days per worker	10.8 (4.6–17.1)	20.5 (13.3–27.6)	−9.6 (−19.3 to −0.03), $P = 0.049$*
Cost of back-related work absence: Mean (95% CI) per worker (US$)	1889.16 (680.86–3097.46)	3884.67 (2497.22–5272.12)	−1995.51 (−3847.03 to −143.98), $P = 0.035$*

Note: This is a subset of the full data set focusing only on those participants who were working pre-injury: those unemployed/not working for nonback-related reasons immediately before their injury were excluded from this analysis in order to best assess the impact of low back disorders (as opposed to other factors) on work absence.

CI indicates confidence interval; IPT, individualized physical therapy; RD, risk difference; RR, relative risk (relative risks below 1, and negative risk differences, indicate lower incidence of work absence in the IPT group relative to the advice group).

**Between-group analysis conducted via a linear mixed model (adjusted for baseline scores) using multiply imputed data.*

TABLE 5. Sensitivity and Subgroup Analyses

	n (IPT/Advice)	Effect Difference in QALYs (95% CI)	Cost Difference in US$ (95% CI)	ICER
Intention to treat (primary)	156/144	0.064 (0.024–0.104)	27.03 (−200.29 to 254.35)	$422.08
Complete case	129/108	0.058 (0.021–0.095)	−25.71 (−227.14 to 175.71)	Dominant
Societal perspective*	156/144	0.064 (0.024–0.104)	−1218.75 (−2808.69 to −371.20)	Dominant
Subgroup: Orebro > median score (97/210)	78/71	0.105 (0.052–0.163)	−116.21 (−434.97 to 202.55)	Dominant
Subgroup: Baseline back pain > median score (5/10)	74/72	0.100 (0.040–0.160)	−100.91 (−418.89 to 217.07)	Dominant
Subgroup: Duration of symptoms > median score (15 weeks)	88/61	0.112 (0.057–0.166)	−25.34 (−255.46 to 204.77)	Dominant

Note: ICERs are not calculated for dominant positions (greater effectiveness and lower cost in the IPT group relative to advice).

For effect and cost data, positive values represent higher QOL and higher cost, respectively, in the IPT group relative to the advice group.

CI indicates confidence interval; ICER, incremental cost effectiveness ratio; QALYs, quality-adjusted life years.

**Partial societal perspective combining healthcare costs and work absence costs.*

Acknowledgments

We wish to acknowledge the trial physical therapists who volunteered to treat participants in this study free of charge. We also acknowledge LifeCare Health for providing facilities, personnel and resources to allow treatment of participants free of charge.

Andrew Hahne, Ben Sheat, Christine Baker, Daniel di Mauro, David Goulding, Emma Liu, Gabrielle Hunter, Joel Laing, Justin Moar, Luke Surkitt, Madeleine Ellis, Mark Opar, Matt Richards, Ross Lenssen, Sarah Slater, Shay McLeod are the trial physical therapists.

Kerryn Dunn provided support to the trial.

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