



Service user and carer co-delivered training programme for mental health professionals to enhance involvement in care planning: a cost-effectiveness analysis

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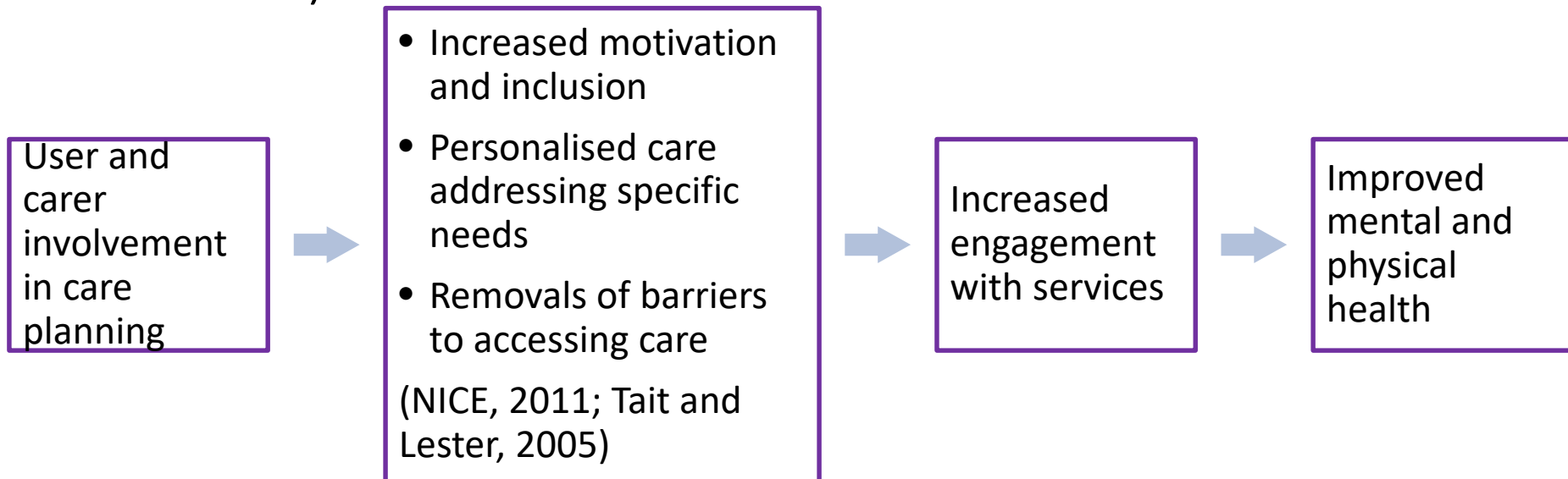
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DISCLAIMER

- This project [Enhancing the Quality of User Involved care Planning (EQUIP)] was funded by the NIHR Programme Grants for Applied Research Programme (Reference Number RP-PG-1210-12007).
- The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care.

BACKGROUND (1)

- Care planning is an interaction between service users and healthcare professionals to engage a service user in decision making.
 - Guidelines in England recognise the importance of care planning as detailed in quality standards and recommendations (NICE 2011).



BACKGROUND (2)

- Recent publications demonstrate that service users want to be involved in care planning (Grundy 2016; Bee 2016).
- The EQUIP research programme aims to enhance service user and carer involvement in care planning within UK mental health services.

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EQUIP 

Enhancing the quality of user involved
care planning in mental health services

EQUIP INTERVENTION

- Standardised training intervention to improve user and carer involvement in care-planning:
 - Designed in partnership with service users and carers using evidence synthesis, interviews and focus groups.
 - 2 days face-to-face training for mental health professionals, co-delivered by service users/carers.
 - 8 hour optional electronic self-directed learning package.
 - Up to 6 hours supervision in 6 months after training.
- Aimed at increased service user/carers involvement in care planning for people with severe mental illness.

EQUIP TRIAL

- Pragmatic, cluster randomised controlled design.
 - 36 community mental health teams (CMHTs) from 10 NHS Trusts.
 - CMHTs randomised to EQUIP training (n=18) or usual care planning (UCP) practice of the CMHT (n=18).
- Service users recruited and assessed at baseline and 6 months:
 - Aged 18 or over with a severe mental illness.
 - Able to give full informed consent and well enough to participate at recruitment.
- Primary effectiveness measure was Health Care Climate Questionnaire (HCCQ-10).
- Secondary outcomes: quality of life; alliance/engagement; service satisfaction; well-being; symptoms; hope and recovery; medication side-effects.

AIM & OBJECTIVES

Aim

- To evaluate the cost-effectiveness associated with the training intervention, compared to usual care (no training) using a health and social care perspective (costs) and service user perspective (health benefits).

Objectives

1. Estimate the costs of health and social care in the EQUIP and UCP groups, and assess whether there were differences between them
2. Estimate the health benefit of participants in the EQUIP and UCP groups, and assess whether there were differences between them
3. Assess whether any additional health benefit of EQUIP is worth any additional cost.

METHODS

- QALYs estimated from EQ-5D-5L & crosswalk utilities.
- Direct costs estimated from services used by each participant.
- Intent-to-treat with missing follow up data imputed with multiple imputation.
- Regression to estimate net costs/health benefit of EQUIP intervention.
 - Adjusted for participants socio-demographic characteristics.
 - Generalised linear model, log-link & gamma distribution (costs).
 - Ordinary least squares (QALYs).
 - Bootstrapping to simulate 10,000 pairs of net cost and QALY pairs.
 - ICER, cost-effectiveness acceptability curves, probability cost effective.
- Sensitivity analysis to test impact of design choices.

RESULTS - PARTICIPANTS

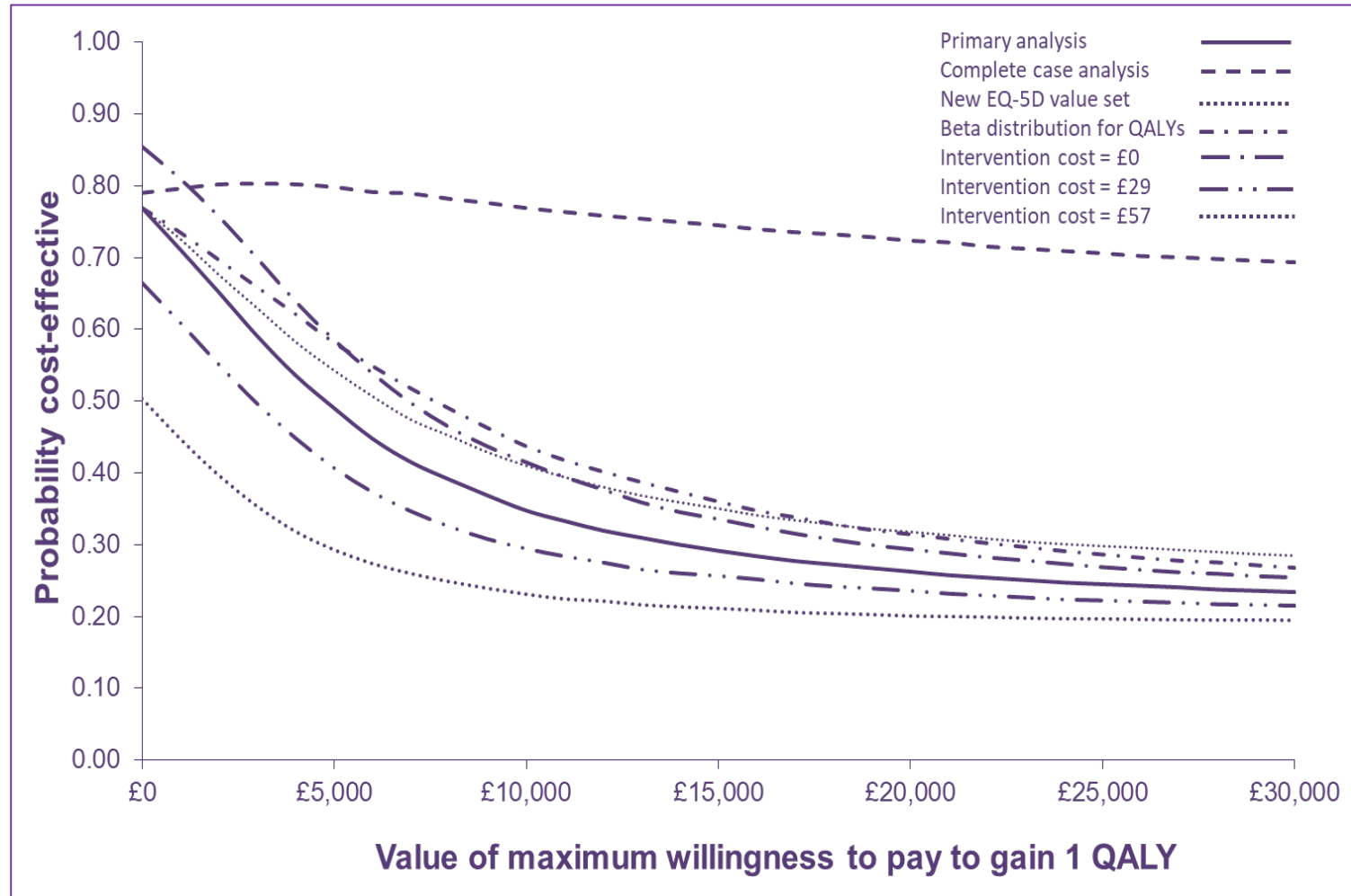
Characteristic	UCP n/N (%)	EQUIP n/N (%)
Age group		
18-24 years	17/265 (6%)	21/324 (7%)
25-44 years	99/265 (37%)	114/324 (35%)
45-64 years	133/265 (50%)	178/324 (55%)
65 years or older	16/265 (6%)	11/324 (3%)
Female	156/262 (60%)	199/327 (60%)
More than one diagnosis	129/271 (48%)	166/333 (50%)
Cost of services in previous 6 months	£1644 (£127)	£1910 (£202)
EQ-5D VAS score	56 (1.49)	54 (1.38)
HADS anxiety score	11.40 (0.36)	12.30 (0.32)
HADS depression score	9.20 (0.36)	10.02 (0.32)

RESULTS – PRIMARY

- Intervention appears to have a net saving and net QALY loss, but 95th percentiles cross zero, indicating uncertainty.
- Probability cost effective depends on decision makers WTPT.

Net cost (5 th ; 97.5 th percentiles)	Net QALY (5 th ; 97.5 th percentiles)	ICER (£/QALY)	Probability EQUIP is cost-effective if WTPT =			
			£1000 /QALY	£5,000 /QALY	£10,000 /QALY	£15,000 /QALY
-£54 (-£193, £84)	-0.010 (-0.034, 0.013)	£5,400 saving per QALY lost	0.71	0.49	0.35	0.29

RESULTS - CEAC



RESULTS - SENSITIVITY

Analysis	Net cost (5 th ; 97.5 th percentiles)	Net QALY (5 th ; 97.5 th percentiles)	ICER (£/QALY)	Probability EQUIP is cost-effective if WTPT =	
				£0 /unit of benefit	£15,000 /unit of benefit
HCCQ score	-£54 (-£193, £84)	0.16 (-0.11; 0.43)	EQUIP dominates	0.77	0.88
PROM 14 score	-£54 (-£193, £84)	0.08 (-2.12; 2.27)	EQUIP dominates	0.77	0.53
HADS anxiety score ¹	-£54 (-£193, £84)	0.38 (-0.19; 0.95)	£142 saving per unit increase in severity	0.77	0.73
HADS depression score ¹	-£54 (-£193, £84)	-0.19 (-0.81; 0.42)	EQUIP dominates	0.77	0.09

HADS, Hospital Anxiety and Depression Score; HHCQ, Health Care Climate Questionnaire; PROM, Patient Reported Outcome Measure.

1 Higher scores on the HADs depression and anxiety scales indicate higher level of symptom severity

CONCLUSIONS

- Primary analysis indicates EQUIP training is not likely to be cost-effective at higher levels of WTPT.
- Sensitivity analysis indicates EQUIP training may be cost-effective when measures of the care planning process and depression symptoms are used.
 - Also depends on the amount decision makers are prepared to pay for such improvements.

LIMITATIONS

- Whilst 6 months was felt to be sufficient for the main analysis of effectiveness, it may be too short for the training to feed through to changing either use of services and costs or overall health and QALYs.
- QALYs are widely used in mental health trials comparing different types of treatment or patient management. However, may not be an appropriate measure to detect changes in care planning if the direct consequence of changes in care planning is to improve service user's satisfaction with the service, rather than health.
- Whilst the trial achieved a high rate of follow up at six months, there was a relatively high level of missing data for costs and the EQ-5D-5L.

Improvement
in care
planning



Service user
satisfaction



Improvement
in health?

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Thanks for listening