Prospective economic evaluation of a peer support intervention for prevention of postpartum depression among high-risk women in Ontario, Canada

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Record Status
This is a critical abstract of an economic evaluation that meets the criteria for inclusion on NHS EED. Each abstract contains a brief summary of the methods, the results and conclusions followed by a detailed critical assessment on the reliability of the study and the conclusions drawn.

CRD summary
This study aimed to evaluate the cost-effectiveness of a volunteer peer-support programme for postpartum depression. The authors stated that the intervention was within an acceptable cost range, but this was sensitive to the regional costs of implementing the programme, and the opportunity cost of time off work. If the randomised controlled trial was appropriately conducted, the authors' conclusions seem appropriate.

Type of economic evaluation
Cost-effectiveness analysis

Study objective
This study aimed to evaluate the cost-effectiveness of a volunteer peer-support programme for postpartum depression.

Interventions
The support programme for postpartum depression was compared with usual care. The programme consisted of at least four telephone calls, starting 48 to 72 hours after randomisation and continuing through the first 12 weeks after the birth. All volunteers underwent a four-hour training session and were given a training manual.

Location/setting
Canada/primary care.

Methods
Analytical approach:
The cost-effectiveness analysis was designed for a randomised controlled trial. The time horizon was the duration of the trial, which was 12 weeks. The authors stated that the study perspective was societal.

Effectiveness data:
The effectiveness data were from the multi-site, randomised, controlled trial; individual patient data were used. There were 314 mothers in the usual-care group, and 296 mothers in the peer-support group. The main clinical effectiveness estimate was whether or not a mother had postpartum depression. This was assessed using the Edinburgh Postnatal Depression Scale (EPDS).

Monetary benefit and utility valuations:
The time off work needed by family or friends and partners was valued using the average hourly wage for a similar demographic group in Ontario, Canada. This wage was from Statistics Canada.

Measure of benefit:
The time off work that was not required, and the postpartum depression that was avoided, were captured in the analysis. The cost-effectiveness ratio was the cost per case of postpartum depression avoided.

Cost data:
The resource use was recorded by research nurses, and collected by a structured telephone interview at 12 weeks postpartum. The case reports included a modified version of the Health Service Utilization and Cost of Care Questionnaire. This captured both health service and family resource use, including out-patient health provider visits,
nursing visits, new-mother support groups, mental health services, emergency room visits, in-hospital care, work absence, hired child care, and household help. The cost of training of volunteers was included; maternal work absence was not due to maternity leave. Health service use was valued using data from the Ontario Health Insurance Plan, the McMaster University System-Linked Resource Unit, and the Ontario Association of Social Workers. All costs were reported in 2011 Canadian dollars (CAD). The medical care component of the Canadian Consumer Price Index was used to adjust costs to 2011, where necessary.

Analysis of uncertainty:
Cost-effectiveness acceptability curves were produced by bootstrapping the individual patient data. Several one-way sensitivity analyses were conducted, by varying the resource use estimates.

Results
The percentage of mothers without postpartum depression was 86.8% with peer support and 75.2% with usual care. The cost per mother was CAD 4,497 with peer support and CAD 3,380 with usual care.

The cost per case of postpartum depression was CAD 10,009 with peer support. There was a 95% likelihood that the cost per case averted was CAD 20,196 or less.

Authors' conclusions
The authors stated that the intervention was within an acceptable cost range, but this was sensitive to the regional costs of implementing the programme, and the opportunity cost of time off work.

CRD commentary
Interventions:
The intervention was satisfactorily described, but usual care was not well described.

Effectiveness/benefits:
Few details of the randomised trial were reported as this paper focused on the cost analysis. This makes it difficult to discuss the validity of the effectiveness results. The analytic methods appear to have been appropriate.

Costs:
The study perspective was clearly stated and those cost items relevant to a societal perspective were incorporated. The cost analysis appears to have been well conducted. The resource use estimates and cost sources were adequately described. The costs were appropriately adjusted for inflation.

Analysis and results:
The analytic approach seems to have been appropriate. The authors divided the difference in cost per patient by the difference in the probability of an event to derive the cost-effectiveness ratio. That is not the same as dividing the difference in total costs by the difference in the total number of events, which gives you the incremental cost per case averted. The true result is, however, not much greater than the value reported. Adequate sensitivity analyses were undertaken. The authors discussed some limitations to their study.

Concluding remarks:
If the randomised controlled trial was appropriately conducted, the authors' conclusions seem appropriate.

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Bibliographic details

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