Teenage mothers and their peers: a research challenge

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SUMMARY

Recent reports[1,2] have highlighted the adverse health experience of teenage mothers. The question of how these mothers' perceptions of their own health status and social networks differ from those of their nulliparous peers is explored in this pilot study, which highlights some practical problems associated with research in this important field.

Keywords: teenage mothers; health status; research; Northern Ireland.

Introduction

THE birth rates to women aged 15–19 years in the United Kingdom (approximately 30 per 1000) are among the highest in Western Europe.[3] The nature of the association between teenage pregnancy and ill health, however, remains unresolved: much of the existing literature refers to the short-term consequences of teenage pregnancy, and individual studies have tended to focus on a single dimension of outcome; i.e. social, physical, or psychological.[2]

The current pilot study makes an assessment one year after childbirth, uses measures of several aspects of perceived health, and includes only first-time mothers, thus minimizing confounding factors related to other pregnancies or children.

The aims of this pilot study were to identify practical problems in studying the effects of teenage motherhood, and to compare the assessments of perceived health status and social networks of teenage mothers with those of their nulliparous peers.

Method

Fifty-five teenage mothers with one child aged 9–15 months were identified by 36 general practices in the Greater Belfast area. A control group of nulliparous teenagers with no history of pregnancy were matched by date of birth, type of house, and postcode. (Full details of method are reported elsewhere.[4]) A questionnaire was used by the interviewer to collect demographic data. Self-report measures administered included the Short Form 36 (SF36) and the Cantril Ladder (which measure self-assessed health status), the 28-item General Health Questionnaire (GHQ) (a measure of non-psychotic illness), the Social Support Questionnaire (measures subjects' perceptions of social support), and the Duke Social Network Questionnaire (measures the qualitative aspects of supportive relationships).[4-6]

Data were entered onto EPI-INFO and transferred to SPSS for Windows for statistical analysis. Demographic and socio-economic characteristics were compared using the McNemar's test. Psychometric and health status scores were initially compared between groups using the non-parametric Wilcoxon signed rank test; subsequently, a parametric paired samples *t*-test was used and regression analysis employed to adjust for selected confounding variables.

Results

Differences between the groups were apparent in spite of the matching characteristics (Table 1).

On initial analysis, mothers' mean scores on the Vitality and Mental Health sub-scales of the SF36 were significantly lower than those of the controls, indicating less vitality and poorer mental state. Mothers' mean scores on the B sub-scale of the GHQ were significantly higher, indicating higher levels of anxiety/insomnia.

On the Cantril Ladder, mothers had a significantly lower mean rating of their current health status and of their change in health over the previous five years.

No other significant differences were observed between the groups with regard to self-assessed health status, the number of people providing social support, or the degree of satisfaction felt with this support.

Results were re-analysed to adjust for the effects of three possible confounding factors: parents living together, number of GCSE passes, and smoking behaviour. Only the SF36 Vitality and Mental Health scores and the Cantril Ladder health status 'change from five years ago' remained significantly different between the groups.

Discussion

It was hoped that matching subjects and controls with regard to age, housing type, and postcode would generate groups with similar distributions of measures that have previously been shown to be associated with teenage pregnancy.[1] Such an assumption proved to be incorrect. It appears that detailed screening interviews of very large numbers, or else a prospective study design, would be required in order to obtain a more closely matched control group. Nevertheless, this study indicates associations between teenage motherhood, measures of deprivation, poor educational status, and some dimensions of self-reported health status.

Despite teenage mothers reporting poorer mental health status, which is in keeping with some previous findings,[1] they reported similar levels of, and satisfaction with, support from their social network.

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Table 1. Demographic characteristics of subjects.

Characteristic	Mothers n (%)	Nullips n (%)	P value
Five or more in family of origin	23 (42)	9 (16)	<0.01
Anyone unemployed in current household	50 (91)	25 (45)	<0.0001
Rented accommodation	50 (91)	27 (49)	<0.0001
Car owner in current household	18 (33)	39 (71)	<0.01
Parents living together	28 (51)	41 (75)	<0.05
Seven or more GCSE passes	7 (13)	29 (53)	<0.001
Current cigarette smoker	37 (67)	22 (40)	<0.01

Table 2. Differences in self-assessed health measures.

Variable	Mothers vs controls (before adjustment) mean difference in scores (95% CI)	P-value
SF-36 Vitality	–12.6 (–19.9, –5.4)	<0.05
SF-36 Mental Health	–11.0 (–18.0, –3.9)	<0.01
GHQ B	0.8 (0.0, 1.6)	<0.05
Cantril Ladder now	–0.9 (–1.6, –0.2)	<0.05
Cantril Ladder now compared with five yrs ago	–1.5 (–2.6, –0.4)	<0.01

Results were adjusted for factors that were thought to reflect social stability, educational attainment prior to motherhood, and an unhealthy lifestyle, since these could have impacted on health status scores. Despite adjustment for these, mothers' scores for vitality and mental health remained significantly poorer.

These findings highlight some practical problems associated with the study of teenage motherhood. Further research involving more expensive and time-consuming study design would be warranted.

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