

Outcomes of Caring Teenage Mothers and Their Children in Young Family Clinic, Siriraj Hospital

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Background: A promising clinical service in Siriraj Hospital, the young family clinic (YFC), is a one-stop service to provide care for adolescent mothers and their children to prevent subsequent pregnancy, promote child-rearing, and avoid child maltreatment.

Objective: To evaluate the outcomes of teenage mothers and their children attending YFC regularly for at least two years.

Material and Method: Sixty-four mother-infants pairs were included in the present study through charts reviewed. A descriptive analysis was performed by using SPSS version 18.

Results: Mean age of teenage mothers was 17.2 ± 1.9 years. After delivery, most of them (84.4%) dropped out from school and remained unemployed. Eighteen point three percent reported illicit drug use and all of them became abstinent. There was no subsequent pregnancy in the two-year follow-up at our service, because most of them (95.3%) chose one of the contraceptive methods. The common option was the long-acting reversible contraception (92.2%). Most of them developed good parenting skills after receiving the education in the clinic (86%), and two third of them (67.3%) continued breastfeeding for at least four months. Most of the children (86.7%) had normal growth and development. There was no depression in teenage mothers or child maltreatment.

Conclusion: Outcomes of the YFC showed a good quality of comprehensive health care service for teenage mothers and their children. This hospital-based clinic should be provided to prevent negative consequences of both adolescent mothers and their offspring.

Keywords: Young family clinic, Teenage mothers, Subsequent pregnancy, Parenting skills, Long-acting reversible contraception

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Teen childbearing worldwide were approximately 14 million, however, more than 90% were in developing countries⁽¹⁾. Teen birthrate in Thailand accounted for 58.3 per 1,000 adolescents pregnant aged 15 to 19-year-olds, which is very high compared with other countries in Southeast Asia^(2,3). The age of sexual debut in Thai adolescents declined from the past decade, which means the age of first sexual intercourse is now 15-year-olds⁽³⁾. In addition, inconsistent condom uses and lack of contraceptives among this population is high⁽⁴⁾. The negative health consequences of adolescent pregnancy is preterm delivery, infants with very low birth weight, and postpartum complications that increase risk of infant mortality and child maltreatment^(5,6). An innovative clinical service, named young family clinic (YFC), has

been established in Siriraj Hospital and opened fully to provide care for adolescent parents and their children since 2012. This service is a one-stop service to improve outcomes of teenage mothers and their offspring. The objective goals of the clinic were to prevent subsequent pregnancy, promote child-rearing, and prevent child maltreatment. The services in YFC included reminding clinic appointments, addressing contraceptive methods, psychosocial support, financial assistance, and well-child care. Those services have been provided to all teenage mother and their infants.

The purpose of the current study is to evaluate the outcomes of the adolescent mothers and their children followed-up in YFC regularly for at least two years.

Material and Method

The retrospective cohort study was performed by reviewed medical chart after reviewed approving from the Ethical Committee of the Faculty of Medicine Siriraj Hospital, Mahidol University. The inclusion

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criteria were teenage mothers and their children followed-up regularly in the YFC for at least two years. We recruited all teenage pregnancy who attended the clinic between 2009 and 2012 and excluded 11 mother-infants that followed-up for only one year. Baseline characteristics of both teenage mothers and their children were obtained. All adolescent mothers in the present study received educational sessions for safe sex, contraceptive methods, parenting skills, and risk reduction counselling. Those sessions were performed by a health educator. We also had a social worker to perform home visit for the teenage mothers who forgot to attend clinic and provided non-formal education information. Furthermore, information to provide types of contraception, duration of breastfeeding, education or employment, parenting skills, family support, risk-taking behaviors after childbirth were included. Our primary outcomes of teenage mothers were to avoid subsequent pregnancy and depression. Regarding to children's outcomes, growth and development and child maltreatment were evaluated. Parenting skills were documented by physicians and depression was evaluated by physicians using Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) diagnostic criteria for depressive disorders.

Statistical analysis

The data analysis was performed using the Statistical Package for Social Sciences software (SPSS version 18 for Windows, SPSS Inc., Chicago, Illinois). Descriptive statistics including the number and percentage (%), mean with standard deviations (SDs) were used when appropriated.

Results

There were sixty-four teenage mother-infant pairs in the present study. Demographic data is shown in Table 1. At two years follow-up, there was no subsequent pregnancy because most of teenage mothers (95.3%) chose one of the contraceptive methods. The common option was the long-acting reversible contraception (LARC) (92.2%). Eighteen point three percent reported illicit drug use and all of them became abstinent. Most of them developed good parenting skills after receiving education sessions in the clinic (86%) and two third of them (67.3%) continued breastfeeding for at least four months. Most of children (86.7%) had normal growth and development. Three children were diagnosed with congenital anomalies and two children were diagnosed with developmental delays from Denver developmental screening test.

Table 1. Demographic data

Data	Total n = 64 n (%) or mean ± SD
Education	
Primary school	19 (29.7)
Secondary school	44 (68.7)
University	1 (1.6)
Family factors	
Parental separation	14 (23.0)
Low income	34 (55.7)
Teenage mother in family	3 (4.9)
Others	10 (16.4)
Antenatal care: yes	58 (90.6)
Serology test: normal	59 (92.2)
Anemia: yes	14 (21.9)
Status with partner	
Marriage	1 (1.6)
Stay together	43 (67.2)
Separate	20 (31.2)
Substance use	
Alcohol	2 (3.1)
Smoking	5 (7.8)
Illicit drug	12 (18.3)
- Amphetamine	9 (75.0)
- Marijuana	1 (8.4)
- Others	2 (16.6)
Mean aged (years)	17.2±1.9
Mean gestational age at first antenatal care (weeks)	20.5±6.4
Mean gestational age at delivery (weeks)	
Term	39.0±1.0
Preterm	35.0±1.8
Mean birth weight (g)	
Term	3,176.2±328.0
Preterm	2,394.0±489.0
Mean breastfeeding period (months)	5.35±3.6

There was no depression in teenage mothers and no child maltreatment was noted (Table 2).

Discussion

The present study highlighted the excellent outcomes of interventions in the YFC. There was no subsequent pregnancy in two years follow-up because most of them initiated at least one type of LARC methods, particularly implants, which was effective and reduced repeated teen pregnancy rate⁽⁷⁾. We also encouraged teenage mothers who used depot medroxyprogesterone acetate (DMPA) or other methods to change to LARC implants or intrauterine devices. The risk reduction counselling was the most effective intervention provided by the health educator and physicians. There was no illicit drug use after

Table 2. Outcomes of teenage mother and their children

Maternal outcomes	Total n = 64 n (%)
Subsequent pregnancy in two year follow-up	0 (0)
Pap smear at 6 weeks postpartum care	100 (100)
Depression	0 (0)
Contraceptive use after delivery: yes	61 (95.3)
Types of contraceptive at two years follow-up	
LARC	59 (92.2)
Others	5 (7.8)
Status after delivery	
Return to school	10 (15.6)
Unemployment	54 (84.4)
Status at two years follow-up	
Education	31 (48.4)
Employment	8 (12.5)
Drinking alcohol after delivery: yes	1 (1.6)
Smoking after delivery: yes	4 (6.2)
Amphetamine use after delivery: yes	0 (0)
Breastfeeding after delivery: yes	52 (81.25)
Continued breast feeding: ≥ 4 months	35 (67.3)
Parenting skills: good	55 (86.0)
Family support: yes	57 (89.1)
Children outcomes	
Gender: female	34 (53.1)
Congenital anomalies: yes	3 (4.7)
Growth parameter: normal	56 (86.7)
Denver developmental screening test	
Yes	33 (55.0)
Suspected delay	2 (3.1)
Immunization: complete	100 (100)
Child maltreatment: yes	0 (0)

LARC = long-acting reversible contraception

delivery in adolescent mothers and smoking showed a decline as well. Furthermore, parenting skills given to adolescent mothers prevented child maltreatment and promoted exclusive breastfeeding, following the American Academy of Pediatrics' guidelines⁽⁸⁾. Two third of teenage mothers in our clinic continued breastfeeding for at least four months after delivery. This is longer than the prior study that showed that the median time of breastfeeding in adolescent mothers was 90 days⁽⁹⁾. Children in the present study completed immunization and mostly grew normally. This result was similar to the prior study, which showed that growth parameter at 18-month follow-up of children born to adolescents mothers were normal over time period⁽¹⁰⁾. The factors of normal growth might be

nutritional education provided in the clinic, especially focusing on individual counseling session to prevent poor weight gain, and early detection of low body weight. Unfortunately, most of the teenage mothers did not agree to spend time for an evaluation of Denver test II for their children, therefore, the percentage of those tests were lower than our expectation.

The limitation of the study was that there was no a control group to compare the effectiveness of the intervention provided in the clinic. Moreover, we did not know the exact outcomes of both teenage mothers and their offspring who dropped out from the clinic. However, eight of eleven patients received implants before missing appointments.

Conclusion

The YFC showed good outcomes and has been a quality health care service for teenage mothers and their children. Educational sessions, particularly types of contraceptives, parenting skills, and risk prevention had an impact on young family's outcomes. The LARC should be provided to all adolescent mothers for preventing subsequent pregnancy as well as improving parenting skills to minimize child rearing problems and prevent child maltreatment.

What is already known on this topic?

Adolescent pregnancy has negative health consequences for both of mother and infant. A program providing care to adolescent mother and their children in many countries reduces adverse outcomes for both of them.

What this study adds?

The study showed that YFC, the multi-disciplinary care service, has excellent outcomes. The service reduced adverse consequences of mother-child in terms of preventing subsequent pregnancy and promoting child-rearing. Providing clinical care for both of adolescent mothers and their children in one-stop service should be implemented nationwide.

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Potential conflicts of interest

None.

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ผลลัพธ์การดูแลมารดาวัยรุ่นและบุตรในคลินิกมารดาวัยรุ่น โรงพยาบาลศิริราช

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ภูมิหลัง: คลินิกมารดาวัยรุ่นเป็นการให้บริการแก่มารดาวัยรุ่นและบุตรในการให้บริการแบบครบในคลินิกเดียวในโรงพยาบาลศิริราช โดยมีวัตถุประสงค์ในการให้การดูแลเพื่อป้องกันการตั้งครรภ์ซ้ำของมารดาวัยรุ่น การส่งเสริมการเลี้ยงดูบุตร และหลีกเลี่ยงการกระทำทารุณกรรมในเด็ก

วัตถุประสงค์: เพื่อประเมินผลลัพธ์ของมารดาวัยรุ่นและบุตรที่มารับบริการในคลินิกมารดาวัยรุ่น

วัสดุและวิธีการ: การทบทวนเวชระเบียนผู้ป่วยในของมารดาวัยรุ่นและบุตรที่มารับบริการติดตามดูแลในคลินิกมารดาวัยรุ่นมีจำนวน 64 คู่ ที่มาติดตามครบอย่างน้อย 2 ปี การวิเคราะห์ข้อมูลใช้สถิติเชิงพรรณนาโดยใช้โปรแกรม SPSS รุ่น 18

ผลการศึกษา: มารดาวัยรุ่นมีอายุเฉลี่ย 17.2±1.9 ปี หลังคลอดร้อยละ 84.4 ไม่ได้ศึกษาต่อในโรงเรียนและไม่ได้ทำงาน ร้อยละ 18.3 มีประวัติการใช้สารเสพติดและหลังคลอดมารดาวัยรุ่นกลุ่มนี้เลิกใช้สารเสพติด ไม่พบการตั้งครรภ์ซ้ำในมารดาวัยรุ่นเมื่อติดตามเป็นระยะเวลา 2 ปี เนื่องจากร้อยละ 95.3 ของมารดาวัยรุ่นเลือกการคุมกำเนิดหลังคลอด โดยวิธีที่เลือกมากที่สุด คือ การคุมกำเนิดระยะยาว (ร้อยละ 92.2) พบว่าร้อยละ 86 พัฒนาทักษะการดูแลบุตรหลังได้รับความรู้ในคลินิก และร้อยละ 67.3 ให้นมบุตรหลังคลอดเป็นเวลา 4 เดือน ร้อยละ 86.7 ของบุตรที่เกิดจากมารดาวัยรุ่นมีการเจริญเติบโตและพัฒนาการที่ปกติ ไม่พบภาวะซึมเศร้าในมารดาวัยรุ่นและการทำทารุณกรรมในบุตร

สรุป: ผลลัพธ์การดูแลมารดาวัยรุ่นและบุตรในคลินิกมารดาวัยรุ่นแสดงถึงการให้บริการแบบองค์รวมอย่างมีคุณภาพ การส่งเสริมการให้บริการทางคลินิกแบบองค์รวมสามารถป้องกันผลกระทบในแง่ลบของมารดาวัยรุ่นและบุตรได้เป็นอย่างดี