

Assessing the Quality of Life among Women Undergoing Elective Cesarean Section versus Emergency Cesarean Section

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Abstract

Background: Cesarean section is the birth of a fetus through an incision in the abdominal wall and the uterine wall. It classified according to time of performing it into elective cesarean and emergency cesarean section. **Aim:** The aim of the study was to assess the quality of life among women undergoing elective cesarean section versus emergency cesarean section . **Setting:** This study was conducted in postpartum unit at Benha university hospital. **DESIGN:** A descriptive exploratory study design was utilized. **Sampling:** A Purposive sample included 200 women. **Tools:** Structured interviewing questionnaire sheet, Visual analogue pain scale and Quality of life questionnaire sheet. **Results:** The present study revealed that there was no significance difference in women's knowledge regarding cesarean section and quality of life between two groups. Pain increased in emergency group than elective group. There was highly statistically significance difference regarding quality of life ($P \leq 0.001$) . Women in elective group had better quality of life than women in emergency group in all domains. **Conclusion:** Women knowledge regarding cesarean section and quality of life was unsatisfactory. The pain score was severe in emergency than elective group. Elective cesarean section had better quality of life than emergency cesarean section. **Recommendations:** developing awareness program for enhancing woman knowledge for improving quality of life post cesarean section.

Key words: quality of life, elective, cesarean, emergency, section

Introduction

Adolescent A cesarean section (CS) is the birth of the baby through surgical incision made in both the wall of the woman's abdomen and uterus. CS has been seen and identified as a method of child delivery that is quicker, safer and more prestigious to the woman (Oyewole et al., 2014). It is a common surgical procedure in Obstetrics and Gynecology and has increased worldwide. CS, an operation mainly evolved to save a maternal life during difficult childbirth, has now become increasingly the procedure of choice in high risk situations to prevent

prenatal morbidity and mortality (Sharma, 2012).

Cesarean section is classified according to time of performing it into **elective cesarean** that is planned by the woman and her obstetrician before labour begins and **emergency cesarean** section that done for reasons that arise suddenly in labor, such as placenta previa, premature separation of the placenta, fetal distress (Pillitteri, 2015).

The indication of CS have been clinical factors such as previous CS, dystocia, fetal distress, breech presentation and malpresentation. Recent maternal characteristics might help explain rising CS rates include increasing maternal age and higher rates of hypertension, diabetes, obesity, and multiple gestations (Fawzy, 2016).

(Liford et al., 2010) reported a relative risk of 1,7% for death attributable to emergency cesarean section compared to elective procedures .The increased mortality was attributed to a greater incidence of postoperative sepsis and thromboembolism. Similar findings showed that emergency cesarean deliveries were associated with a great incidence of postpartum infection than elective procedures.

Quality of life has become an area of increasing importance to the area of maternal and child health. Women's perception of health-related quality of life is an essential measure of the quality and effectiveness of maternal and child health interventions (Rezaei et al ., 2016). Women having CS more experience complication, pain, prolonged recovery, readmitted to a hospital, fatigue, discomfort, stress and anxiety than women with vaginal birth (Lauwers & Swisher, 2011).

Nurse plays an important role as caregiver in preparing the women preoperative, operative and postoperative procedure . Assist with obtaining diagnostic test as ordered to ensure the wellbeing of mother . All criteria for surgery are tried to meet with senior staff including obstetrician, anaesthetist and pediatrician are available and ancillary services are good (Ricci, 2013).

Subjects &Methods

Technical Design:

Technical design of the study includes: research design , setting of the study , sample and tools of data collection.

Research design:

A descriptive exploratory design.

(A)Research setting:

This study was conducted in postpartum unit at Benha university hospital.

(B)Sampling:

*Sample type:

Purposive sample.

*Inclusion criteria:

- Women undergoing cesarean section whether elective or emergency.
- Gestational age > 37 weeks.
- Able to read and write

* Sample size:

- 200 women, They divided in two equal groups (100 emergency CS , 100 elective CS).

(C) Tools of Data collection:

The following tools were designed and used after reviewing related literature and under supervision of the supervisors of the study.

1-Structured interviewing questionnaire, it includes three parts:

Parts (1)

Demographic data of women included in the study (age, educational level , occupation, residence)

Part (2):

women history (medical, family, menstrual ,past and present obstetric history)

part (3):

assessment of women's knowledge regarding cesarean section(10 items) as (definition, indication, risks,..etc) and knowledge regarding quality of life (7 items) as (definition ,dimensions, factor affecting quality of life,..etc)

Knowledge's scoring system:-

Each correct answer scored as (1) while incorrect answer scored as (0) .

Total score ranging from (0-17). less than > 60% was unsatisfactory, equal or above ≤ 60% was satisfactory.

II. Visual analogue pain scale

Visual analogue pain scale was used for assessing severity of pain. It is a standard tool having rating from 0 to 10 for evaluating severity of pain (Khosravu & Moghadam, 2012) .

Pain Scoring system:

- no pain (0)
- (1-4) - means mild pain
- (4-7) - moderate pain
- (7-10) - means sever pain in this scale.

III. Quality of life questionnaire sheet:

It included 26 item which measure the following broad domain: physical health (10 items) , psychological health (8 items), social relationship (4items) and environment (4 items) of women (WHO, 2014).

Scoring system:

- 0 < 18 worse
- 18 < 35 average
- 35 < 52 better.

Ethical Considerations:

- The aim of the study was explained to each woman before applying the tools to gain their confidence and trust.

- consent of women was obtained orally before history taking and after explanation of the purpose of the study.

- Women were assured that data collected was used only for research. Each woman was informed that participation was voluntary had right to withdrawal at any time of data collection and there is no harm.

Results

Table (1) shows that shows that 38% and 42% of the studied women were 25<30 years old with mean age 28.03 ± 4.50 and 28.44 ± 4.17 years old in both groups respectively. As regards educational level 46% and 43% of both group had secondary education. Concerning occupation 58% of elective group were wok, while 55% of emergency group were housewife. As far as residence 70% and 64% in elective and emergency groups live in rural areas. There was no statistically significant difference between elective and emergency group regarding socio-demographic characteristics. **figure (1)** Shows that, illustrates that more than two third (70% and 78%) of elective and emergency groups had unsatisfactory of total

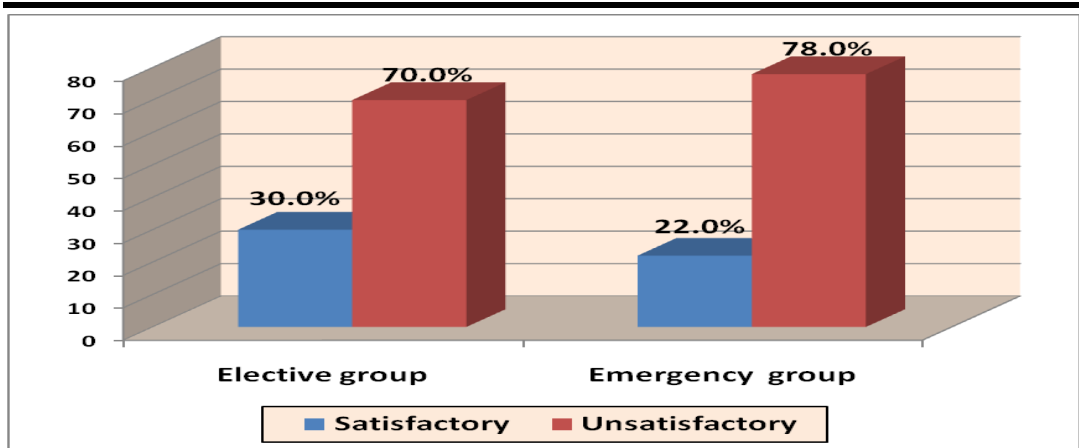
Assessing the Quality of Life among Women Undergoing Elective Cesarean Section versus Emergency Cesarean Section

knowledge regarding CS and quality of life. **Table (2)** Shows that, shows that shows mean score of pain in both groups. There was no statistical significance difference in elective and emergency group after 2 and 4 hours and there was highly statistical difference in immediately after operation, after 30 minutes, 6 hours and 12 hours in elective and emergency groups. **Table (3):** Shows that, shows that 87% of elective group had average level in physical domain of quality of life while, 53% had worse level in physical domain of quality of life. Also 78% of elective group compared to 63% of emergency group had better level in social domain of quality of life. It illustrates that

59% of elective group had better level on psychological domain of QOL compared to 6.0% of emergency group. Regarding environmental domain 67% had better level compared to 30% of emergency group. **figure (2):** Shows that, 36% of elective group had better level of quality of life compared to 4% of emergency group. It also illustrates that 64% of elective group had average level of quality of life compared to 89% of emergency group. **Table (4):** shows that there was positive highly statistically significant correlation between Total knowledge score and Total quality of life score in elective and emergency group.

Table (1): Distribution of demographic characteristics of study sample

Group	Elective n=100 %	Emergency n=100 %	X ²	P – value
Demographic characteristics				
Age (years)				
20 < 25	32.0	26.0		
25 < 30	38.0	42.0	2.714	.438
30 < 35	21.0	27.0		
≥ 35	9.0	5.0		
Mean ± SD	28.03 ± 4.50	28.44 ± 4.17	t=0.668	0.505
Educational level				
Illiteracy	3.0	2.0		
Read and write	4.0	9.0		
Basic education	8.0	12.0	FET	.498
Secondary education	46.0	43.0		
University education	39.0	34.0		
Occupation				
Working	58.0	45.0	3.383	.066
Housewife	42.0	55.0		
Residence				
Urban	30.0	36.0	.814	.367
Rural	70.0	64.0		



$X^2= 1.663$ P – value=0.197

Figure (1): Distribution of the studied sample according to level of knowledge about cesarean section and quality of life (n=200)

Table (2): Mean scores of pain (n=200).

Group \ Pain	Elective n=100	Emergency n=100	t independent test	P – value
	Mean ± SD	Mean ± SD		
Immediately after operation	3.50 ± 2.69	4.55 ± 2.49	2.865	0.005**
After 30 minutes of operation	4.87 ± 3.02	5.80 ± 2.73	2.283	0.024*
After 2 hours of operation	6.21 ± 1.67	6.65 ± 1.71	1.841	0.067
After 4 hours of operation	6.49 ± 1.64	6.88 ± 1.47	1.776	0.077
After 6 hours of operation	5.77 ± 1.75	6.42 ± 1.58	2.753	0.006**
after12 hour of operation	5.05 ± 1.90	5.85 ± 2.13	2.801	0.006**

* A statistical significant difference ($P \leq 0.05$).

**A highly statistical significant difference ($P \leq 0.001$).

Table (3): Distribution of the studied sample according to quality of life (n=200) .

Quality of life items \ Group	Elective n=100			Emergency n=100			X ²	P – value
	Better	Average	Worse	Better	Average	Worse		
	%	%	%	%	%	%		
Physical domain	1.0	87.0	12.0	0.0	47.0	53.0	FET 38.802	0.000
Social domain	78.0	22.0	0.0	63.0	35.0	2.0	FET 6.561	0.038
Psychological domain	59.0	41.0	0.0	6.0	57.0	37.0	FET 82.828	0.000
Environmental domain	67.0	31.0	2.0	30.0	70.0	0.0	FET 31.173	0.000

A statistical significant difference ($P \leq 0.05$).

A highly statistical significant difference ($P \leq 0.001$).

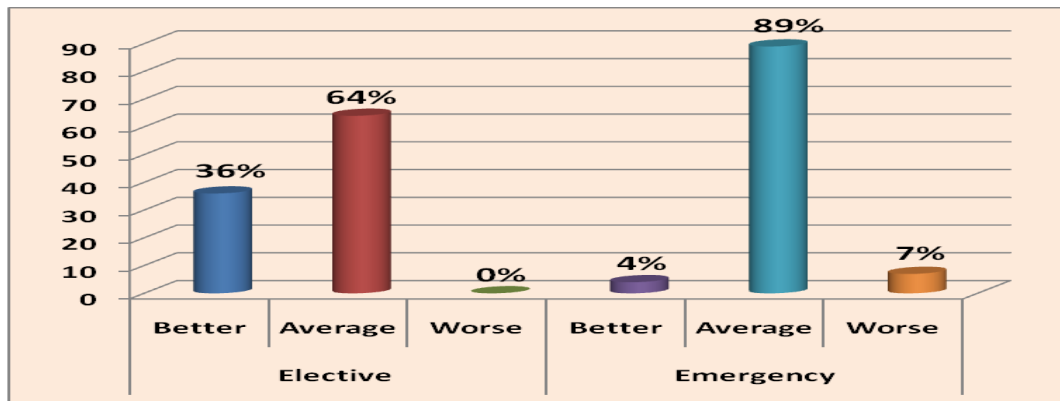


Figure (2): Distribution of the studied sample according to total level of quality of life (n=200).

Table (4) Correlation coefficient between Total knowledge score and Total quality of life score of the both studied groups (n=200).

Variable		Total knowledge score	
		R	P
Total quality of life score	Elective n=100	0.612	0.000**
	Emergency n=100	0.652	0.000**

Discussion

Concerning general characteristics of the studied women of the present study, there was no statistical significant difference between elective group and emergency group regarding their personnel characteristics. Regarding age of studied subjects, it was revealed that the mean age of elective and emergency groups were (28.03 ± 4.50 , 28.44 ± 4.17) respectively and majority of mothers in two group was in the age range from $20 < 30$ years. This finding was supported by **Raees et al., (2012)** in their study about "Maternal morbidity associated with emergency versus elective cesarean section" The study showed that most of women in elective and emergency group were in young age with mean age (31.54 ± 4.64 , 30.83 ± 5.08). In contrary the study of **Benzouia et al., (2016)** in Morocco the study about "Fetal outcome in emergency versus elective cesarean sections at Souissi Maternity Hospital, Rabat, Morocco" and reported that elective CS were globally performed in older mothers with a mean age of 31.5 ± 6.54 years. On the other hand, emergency CS were performed in younger mothers with a mean age of 27.8 ± 6.07 years. This difference in the ages of mothers was statistically significant ($P < 0.001$).

Regarding educational level, the study revealed that near to half of studied women had secondary education. This finding in agreement with **Rasheed et al., (2010)** in a study about "maternal and fetal outcomes in emergency versus elective two or more previous cesarean" who stated that there was no statistical significant difference in elective and emergency group in age, education and area of residency.

Regarding knowledge of studied women about CS, There is no significance difference in elective and emergency group at level of knowledge regarding CS and there was unsatisfactory level of total knowledge in both group. This finding is in agreement with **(Ghotbi et al., 2014)** in Iran in a study about "Women's knowledge and attitude towards mode of delivery and frequency of cesarean section on mother's request in six public and private hospitals" who clarified that mothers' knowledge scores were unsatisfactory and there is no significant difference in knowledge was observed between mothers. Regarding knowledge of studied women about QOL, there was no significance difference in both group and there was unsatisfactory level of total knowledge in both group. This study matched with **Hassali et al., (2012)** in Pakistan in a study about "Disease related knowledge and quality of life: a descriptive study" who stated that poor knowledge was evident in responses to questions associated with health related quality of life. The poor level of knowledge regarding CS and QOL in this study may be attributed to lack of health education and information provided by nurse midwives to women during their antenatal visits.

In relation to effect of types of CS on pain level, the finding revealed that mean score level of pain increased in emergency group than elective group immediately after CS, after 30 minutes, 2 hours, 4 hours, 6 hours and 12 hours of operation. This was supported by **Huang et al., (2011)** in a study about "Cesarean delivery for first pregnancy and neonatal morbidity and mortality in second pregnancy" who stated that emergency CS tend to be more stressful

with a greater degree of anxiety and pain than elective CS. pain leads to the reduction of QOL after caesarean surgery; it may also disturb the individual's life.

The current study emphasized that there was statistically significance difference in elective and emergency group regarding physical domain, QOL and emergency group had poor physical wellbeing than elective CS which affect QOL. This study in confirmed by **Rowlands and Redshaw , (2012)** who clarified that women who had forceps-assisted vaginal births and emergency CS births reported the poorest health and wellbeing, while those of women who had unassisted vaginal births and planned CS births were less affected by the birth process.

The current study stated that majority of both groups had sleep disturbance this study matched with **Tzeng et al., (2015)** in a study about "Sleep Trajectories of Women Undergoing Elective Cesarean Section: Effects on Body Weight and Psychological Well-Being" who mentioned that the majority of women had sleep disturbances until 6 months postpartum. because CS women have to go through surgery and wound pain, which may lead to more sleep problems than after vaginal delivery.

Regarding psychological domain of QOL, the current study showed that the majority of emergency group fear from unknown CS, complication of operation and more excited than elective group. This finding agrees with **Mwale, et al., (2014)** who report that more women undergoing emergency CS express negative feelings towards delivery as compared to those

undergoing elective CS. Some of this anxiety may originate from a previous traumatic birth experience which can overwhelm a woman's normal ability to cope with stress. The present study stated that higher percentages of elective group always has satisfaction to the self and the child and feeling happy compared to low percentages of emergency groups. These finding also in agreement with **Zanardo et al., (2016)** in Canada in a study about "Influence of elective and emergency cesarean delivery on mother emotions and bonding" who founds that emergency cesarean delivery negatively affects mother bonding and opening emotions, and originates in mother feelings like sadness and disappointment than planned cesarean.

The current study illustrated that CS operation had sometimes effect on breastfeeding on two thirds of emergency group compared to one thirds of elective group. This study matched with **Hobbs, (2016)** in a study about "The impact of cesarean section of breastfeeding initiation, duration and difficulties in first months postpartum" who stated that 40% of women who had an emergency c-section were unable to successfully breastfeed baby on the first attempt compared to approximately 25 % of women who either delivered vaginally or by planned CS.

The current study indicated that there was statistically significance difference in elective and emergency group regarding social domain and women in elective group receive more social support from family, friends, husband than emergency group. This study in agreement with **Abdollahpour & Keramat, (2016)** who stated that perceived

social support from family had a direct impact on maternal wellbeing and reduce depression and anxiety more effectively. The present study revealed that there was statistically significant difference in both group regarding effect of CS on sexual activity. It showed that emergency group had effect on sexual activity more than elective group. This study was in agreement with **Safarinejad, (2010)** who concluded that women with vaginal delivery and emergency CS had statistically significant in sexual activity as compared with elective CS women.

Regarding environmental domain quality of life, It shows that elective group elevated slightly in environmental domain than emergency group. This study collaborated with **Sen, (2014)** in a study about "Assessing Domains in Quality of Life" who clarified that most of women in research scores average satisfaction in environmental domain which includes, social security, cleanliness and security, basic infrastructure, services and goods available and transportation options.

The current study showed positive highly statistically significant correlation between total knowledge score and Total quality of life score in elective and emergency group. This study in accordance with **Salem, (2015)** in Benha, the study about "Effect Of Self Care Guideline On Quality Of Life Among Women Undergoing Cesarean Section" . The study clarified that there was a highly statistically significance positive correlation between women's knowledge with QOL of life.

Conclusion

In the light of the study finding, some important facts could be concluded:

There was no statistically significant difference in knowledge regarding cesarean section and quality of life in both group, majority of both groups had unsatisfactory knowledge, pain score and complication increased in emergency group more than elective group, There was statistically significant difference in elective and emergency group regarding quality of life, elective cesarean section had better physical, psychological, social and environmental quality of life than emergency cesarean section. Finally, it was cleared that findings answered research question and achieved aim of the study.

Recommendations

In the light of the current study findings, the following recommendations are suggested:

- Encourage mother classes regarding advantages of elective cesarean section and danger of emergency cesarean section during antenatal period.

- Developing awareness program for enhancing woman's knowledge regarding improving quality of life post cesarean section.

Further studies need to be performed:

- Apply the same study in large sample size in different setting.

- Effect of postnatal follow up on quality of life..

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