

# Improved Clinical Competence and Patients Satisfaction: Comparison of Patient-centered, Interdisciplinary Collaborative Round versus Traditional Post-partum Round

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## ABSTRACT

The origin of the patient-centered interdisciplinary collaborative round, which involves health care members of all levels at a time, is an effective and emerging approach to offer inpatient healthcare. Traditionally, post-partum rounds at teaching hospitals consisted of separate visits from all members of the obstetric team that resulted in patient inconvenience, care insufficiencies, and communication gaps. The main objective of this study was to assess the patient's satisfaction level from the traditional post-partum round *versus* the patient-centered collaborative care (PCCC) round. This study showed that in the traditional round, the patient's satisfaction with the treatment was 95.1%; whereas, in PCCC rounds it was 96.9%. Patients were more satisfied with the treatment options discussed with them and the results of the medical tests explained to them. In conclusion, the survey showed that the implementation of the PCCC round improved patient satisfaction.

**Key Words:** *Interdisciplinary collaborative round, Traditional postpartum round, Patients satisfaction, Clinical competence.*

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An important indicator to assess the standard of healthcare is patient's satisfaction, which can also be used as quality improvement tool for healthcare institutions.<sup>1</sup> Reports like 'To Err is Human—Building a Safer Health Care System' emphasised the need for innovations in delivery of high-quality care that is patient-centered.<sup>2</sup> Among such innovations, origin of interdisciplinary collaborative rounds, which involves nurses, physicians, quality officers, admin representatives as well as learners of all levels at a time, is an effective and emerging approach to offer inpatient healthcare.<sup>3</sup>

Traditionally, post-partum rounds at teaching hospitals consisted of separate visits from all members of the obstetric team individually including nurses, medical students, residents, attending physicians, quality improvement and patient safety officers (QIPS). This resulted in patient inconvenience, dissatisfaction, care insufficiencies and communication gaps.<sup>3</sup>

The majority of the literature on this matter is from United States and other high-income countries (HICs). Much remains unknown in low- and middle-income countries (LMICs), including Pakistan. Few earlier studies were conducted regarding patient's satisfaction, but efficiency of patient-centered collaborative care (PCCC) in health delivery system was not evaluated locally, resulting in a dearth of local literature regarding this important topic.

Thus, to improve the culture of teamwork in a local teaching hospital, a quality improvement (QI) project was designed and evaluated in a local secondary care hospital that included not only physicians and doctors but also nurses, pharmacists, paramedical staff and QIPS officers, into daily bedside morning rounds. Pre-intervention and post-intervention surveys were conducted to assess patient's satisfaction level in order to assess whether a paradigm shift from traditional post-partum round to PCCC round would improve clinical efficiency and patient's satisfaction.

This study is first of its type that examines the PCCC approach in local healthcare settings. The main objective of this study was to assess the patient's satisfaction level from traditional post-partum round *versus* PCCC round.

This was a cross-sectional study, conducted from June 2017 to February 2018, at one of the secondary care settings of the Aga Khan University Hospital for Women, Garden, Karachi.

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**Table I: Responses by patients (N=145).**

Questions asked	Numbers of patients who agreed to the questions asked		p-value
	Traditional Round N = 81 (%)	PCCC Round N= 64(%)	
Team greeted me	80 (98.8)	64 (100)	0.999
I was called by my name	79 (97.5)	63 (98.4)	0.999
Team showed interest in my problem	76 (93.8)	64 (100)	0.129
I was explained about my condition	76 (93.8)	63 (98.4)	0.229
Treatment options were discussed	75 (92.6)	64 (100)	0.034*
Reasons for medical tests were explained	66 (81.5)	61 (95.3)	0.026*
Team communicated with me in understandable language	76 (93.8)	62 (96.9)	0.537
I was given adequate time by team	75 (92.6)	63 (98.4)	0.128
I feel treated with respect	76 (93.8)	62 (96.9)	0.089
I am satisfied with my treatment	77 (95.1)	62 (96.9)	0.292
I am satisfied with nursing care	65 (80.2)	62 (96.9)	0.007*
I would like to visit this hospital again	72 (88.9)	62 (96.9)	0.099
I will recommend this hospital to others	68 (84.0)	64 (100)	0.001*
<i>A p-value of <math>\leq 0.05</math> statistically significant denoted as *</i>			

The data was collected on a structured questionnaire adapted from previously used survey tools.<sup>3</sup> The study included all the patients admitted in post-natal ward for at least two days after delivery from 20<sup>th</sup> June to 19<sup>th</sup> July 2017 (pre-intervention survey) and for one month from 1<sup>st</sup> February to 28<sup>th</sup> February 2018 (post-intervention survey) after PCCC rounds that has been placed for 6 months from August 2017 to January 2018. A total of 145 women were included in this analysis; 81 of them participated in traditional post-partum rounds and 64 participated in PCCC rounds. The survey form was given to consented post-partum patients at the time of discharge, who were admitted during study course. The obtained information from pre-intervention survey was then compared with the information collected from post-intervention survey.

Descriptive statistics was carried out to analyse the data by calculating the frequencies and percentages for the categorical variables. Chi-square and Fisher's Exact test were further applied to evaluate the responses of survey questions for those patients included in the traditional rounds, compared to those included in the PCCC rounds. A p-value of  $\leq 0.05$  was considered statistically significant. The data was analysed using Statistical Package for the Social Sciences (SPSS) version 19 (SPSS Inc., Chicago, IL). The study was approved by the Ethics Committee of the Aga Khan University Hospital.

A total of 145 women were included in this analysis; 81(55.9%) of them participated in traditional post-partum rounds and 64 (44.1%) participated in PCCC rounds. Maternal age, parity, literacy and occupation were comparable between patients included in traditional and PCCC rounds. The demographic data of patients in traditional round showed that majority of the respondents were of age <31(76.5 %) years followed by >30 (23.5 %) years. About 1.2% respondents were uneducated followed by primary level (6.2%), secondary level (48.1%) and graduation (44.4%).

In the study, 91.4% of the respondents were housewives, 95.1% had parity of less than four, while (4.9%) had parity of more than four. Whereas, in PCCC round, majority of respondents were of age < 31(67.1%) and >30(32.8%) years. About 7.8% respondents were uneducated followed by primary level (3.1%), secondary level (40.6%) and graduation (48.4%). In all, 82.8% of the respondents were housewives, 96.9% of patients had parity of less than four, while 3.1% had parity of more than four.

Table I shows that in traditional round the patient's satisfaction with the treatment was 95.1%; whereas, in PCCC rounds it was 96.6%. A difference of 1.6% was observed, although higher level of satisfaction was reported in the study by Qadri;<sup>4</sup> and 89.1% of the patients were satisfied with PCCC rounds. In traditional round, 80.2% of the patients were satisfied with the nursing care; whereas, with PCCC round the satisfaction level raised to 96.9%. These findings are similar with the study conducted by Bitew.<sup>5</sup> In PCCC round, 100% respondents were satisfied with the interest showed by the team in their problems; whereas, in traditional round 93.8% respondents were satisfied.

In traditional round, 93.8% of the patients were satisfied with the disease explanation given to them, 92.6% reported that alternate treatment options were given to them, and 81.5% were explained about rationale of medical tests. While for PCCC round, 98.4% patients were satisfied with disease explanation, 100% of the patients with the alternate treatment options and 95.3% with the reasoning of medical tests. These finding are also similar to the study by Bitew,<sup>5</sup> in which satisfaction with explanation about treatment was reported in 92.3%.

In traditional round, 88.9% patients provided the preference to visit the same hospital again and 84% suggested that they would like to recommend this to others; while in PCCC round 96.9% patient exhibited their willingness to visit same

hospital again and majority recommended this facility to others. This is comparable to the study by Nisa,<sup>6</sup> where 98% patients recommended same facility to others.

Patient satisfaction is an important factor in the patient care and management. The assessment of patient satisfaction through surveys and their outcome data help in monitoring quality of care and planning and implementing strategies to improve patient care. This survey showed that implementation of PCCC round improved patient satisfaction. Patients were more satisfied with the treatment options discussed with them and results of the medical tests explained to them, they showed more satisfaction with the nursing care and provided their preference to visit the same hospital again and to recommend it to others.

Hence, this study specifies that PCCC round improves clinical efficiencies with team work as well as effective communication between team members. PCCC round brought the opportunity of actively and mutually evaluating the patient and medical team member's interactions in such a way that necessary clinical, academic and administrative adjustments in the best interest of patient and hospital are made with secure coordination and competency among team members.

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#### ETHICAL APPROVAL:

The ethical approval was obtained by the Ethics Review Committee of the Aga Khan University Hospital prior to initiation of the research work.

#### PATIENTS' CONSENT:

Written informed consents were taken from the participants prior to data collection.

#### CONFLICT OF INTEREST:

The authors declared no conflict of interest.

#### AUTHORS' CONTRIBUTION:

AJ: Conceptualisation of topic, designed, literature search, manuscript writing, and editing of manuscript.

AS: Literature search, data collection and manuscript writing.

IS: Statistical analysis, proofreading, review and final approval of manuscript. responsible and accountable for the accuracy or integrity of the work.

NQ: Data collection and interpretation of results.

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