Author's response to reviews

Title: Impact of fast-track discharge from cardiothoracic intensive care on family satisfaction

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Author's response to reviews: see over
Impact of fast-track discharge from cardiothoracic intensive care on family satisfaction

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Running head: family satisfaction, cardiac surgery

Abstract word count: (Structured=277)
Text word count including references: 4260 Tables: 7 Figures: 2

Conflict of interest: Competing interests

Financial competing interests
I did not receive in the past 5 years reimbursements, fees, funding, or salary from an organization that may in any way gain or lose financially from the publication of this manuscript now, however Hamad medical corporation is going to fund for article
processing charges.
I did not hold any stocks or shares in an organization that may in any way gain or lose financially from the publication of this manuscript, either now or in the future.
I did not hold or are you currently applying for any patents relating to the content of the manuscript. I did not receive reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript.
I do not have any other financial competing interests.
No other any non-financial competing interests (political, personal, religious, ideological, academic, intellectual, commercial or any other) to declare in relation to this manuscript.

**Key words:** family satisfaction, fast track discharge, cardiac surgery.

**Acknowledgment:** We thank all members of cardiothoracic surgery, Heart hospital as well as the research department, Hamad Medical Corporation, for supporting this article.

**Authors' contributions**

*Authors Contributions*
ASO wrote the manuscript, designed the study and submitted the manuscript. AS, PS data collection, data management, provided support in the initial study design and in writing the manuscript, MG data collection, RT data collection, and AKT, as chair of the intensive care unit, provided general support. All authors read and approved the final manuscript.

**Intention to publish in BMC Anesthesiology Journal**

This manuscript submitted to BMC Anesthesiology journal and is not under consideration for publication elsewhere.

The authors feel that this manuscript adds to the already existing published medical literature regarding family satisfaction after cardiac surgery.

The authors think that this particular area need investigation, no previous studies in the Gulf area addressed family satisfaction after cardiac surgery in the settings of short track
discharge, and few studies went through the later subject. The population in the study is highly interesting contain diversity of cultures, norms and religions.

The statistical part was done by senior consultant biostatistics (7th author), the English, and native British colleague reviewed grammar and punctuation, secondary revision for the later issue done by Grammerly program. The last version went through Edanz group (recommended BMC editor)

The study was conducted from **February 2013 to February 2014 over 12 months** in the cardiothoracic intensive care unit, Hamad Medical Corporation (12 beds). Approval for the study was obtained from the ethical committee (reference number 13244/13).

Reviewer's report

Title: Impact of fast-track discharge from cardiothoracic intensive care on family satisfaction

Version:1Date: 23 March 2015

Reviewer: Gianluca Paternoster

Thanks for taking the time and effort to review our manuscript

Reviewer's report:

**MAYOR COMMENTS** The study is underpowered and represents only a single centre experience, so the conclusions of the authors are too strong! The major limitations in my
opinion is that the phycisian that meet the family is not the same. It was interesting to compare "SENIOR" and "JUNIOR" Phycisian before publication.

The plan of the research was set initially that one physician will meet the family member, our preference was that senior physician do the meeting with the next of kin, and this was achieved in 39 families (15.3% of the total study population), however depending on the senior availability and work load; senior attendance 24/7 could not be achieved to match the family visit timing. We thought that this could have an impact on family satisfaction so we did this comparison which is further explained in the discussion (Tables 3&7). Our observations were corroborated by previous literature


MINOR COMMENTS Does the phycisians had a training in communications?

Communication training is compulsory in our corporation, all research participants receive direct or online training in communication which is an essential part of their enrollment in any research activities as per corporate research center regulations. Each researcher will get a certificate upon completion of the same.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests: NO CONFLIT OF INTEREST

Reviewer's report Title: Impact of fast-track discharge from cardiothoracic intensive care on family satisfaction
Reviewer's report: Major essential revisions Dr Omar and colleagues present the results of their study concerning the impact of fast-track discharge from cardiothoracic intensive care on family satisfaction. The study involved 255 family members and overall was well conducted.

The authors want to express their gratitude for the extensive effort taken by the reviewer to improve their manuscript.

However this topic has not a strong clinical impact, and does not address information relevant to improve the patients’ outcomes. For this reason I think that these data may be worth publication, but are more suitable for a brief communication/report oder a letter to the editor, instead of a research article.

The authors think that this article could have a clinical impact on family satisfaction which needs to be addressed as this may be considered as a part of the overall outcome with the treatment directions. We strongly think that dissatisfaction of the intensive care families could be reflected to overall poor experience on them and their patients who are the focus of interest. This is especially true in a country like Qatar which is demographically peculiar with people belonging to entirely different culture and lifestyle are living together. Arab people are highly dependent on their family members to make surrogate decision and it is of vital importance to keep the family members up to date about the patient condition and to take them in to confidence in order to have a favorable outcome*. We also consider patient satisfaction as one of the quality of care indicators as per our corporation directions. Expressing these thoughts in a manuscript could help practitioners in doing better to these groups. Managing the roots of dissatisfaction could improve the overall clinical care which may affect the outcome. (Added to the manuscript introduction)

The definition of fast track discharge from ICU is the discharge within 24 hours of admission. I do not agree completely, as discharge within 24 hours necessarily implies that a patient has not complications…therefore it is not based only on the presence of a fast track protocol. Is there any other definition of fast track discharge in literature which is not affected by the eventual occurring of complications?

We depend on “fast track discharge” definition that comes from one literature [9]. Moreover this is the current process implemented in our department which we want to assess. As mentioned in the manuscript, we made a conscious effort to discharge the patients as early as possible and one of our aims was to measure the impact of early discharge on family satisfaction. However, we do agree it is a valid point that not all the patients who got a delayed discharge from our ICU had a clinical indication for the same; logistic issue could have played a role. Hence we proposed to shed some light on this part.

Pertaining to your question of fast track discharge with reference to cardiac surgery and its relation to the eventual occurrence of complications, two studies are worth mentioning

1. Kogan et al.(2003) studied the effect of fast-track discharging of the patients within 4-6 hours of extubation on the incidence of complications. The rate of readmission to the unit was 3.29% out of which 43% happened in the first 24 hours. A Parsonnet risk score more than 20 strongly predicted readmission


2. Kiessling et al.(2013)** defined fast tracking as discharge to Intermediate Care unit by 7.30 pm on the day of surgery. 4 patients out of the eligible 229 patients got readmitted to the unit after fast tracking. Predictors for failure of the fast-track procedure are a preoperative ASA class > 3, NYHA class > III and an operation time >267 min ± 74. They concluded that Re-admission to the ICU is associated with a poor patient outcome.

Coming back to our study, the discharge from ICU was based on strict discharge criteria and patients not satisfying the above criteria were retained in the ICU. This is evident from the higher Therapeutic Intervention Scores, longer ventilation time and higher Euroscore in our patients belonging to more than 1 day ICU stay category. Consequently we had 6 readmissions – 3 of them in the fast track group and 3 in the non-fast-track group. None of these re admissions occurred within 24 hours of discharge. Hence we cannot conclude that fast tracking is associated with more complications in high dependency unit. Another important point is that the aim of our study was not to measure the effect of early discharge from ICU on the incidence of complications, but on family satisfaction. The correlation of family satisfaction with severity of patient illness is very complex. We have elaborated it further in the discussion (line 254-266)

Please clearly state inclusion and exclusion criteria in the methods. The authors talk about “eligible families”….but eligibility criteria are not clear.

We added inclusion and exclusion criteria as per your recommendation

Inclusion criteria

Family member more than 18 years, adult patients more than 16 years, availability and agreement to participate in the study.

Exclusion criteria

Families could not be traced or refused to participate, poor understanding of the given questionnaire.

Many readers may be not familiar with the SCCMFNAQ score: please add a table explaining the score

We added as appendix 1
Line 154-55: the authors used a pilot group of 20 families to assess the reliability and validity of the questionnaires… which is the rational for this validation? Is the score is already validated in literature, why was this step performed? How was this validation performed?

We have done a pilot study. Even though the questionnaire is validated in many previous studies, we thought that the group difference in terms of situation, culture and language may need this intervention. The validation was performed through taking 20 families questionnaires as a pilot group without enrolling them in the study later. These group was subjected to statistical testing of reliability and validity through (SPSS version Mac 22) The overall reliability was tested in the pilot group (Cronbach’s alpha = .8). An exploratory factor analysis indicated that the condition of work effectiveness that comprised 19 items got subscale reliability as measured by Cronbach’s alpha, ranged from .815 to .828. The interclass correlation coefficient in the same test (ICC) of CWE was .83 (adequate is .72 but .8 is preferred), denoting high-reliability level.

The interclass correlation coefficient (ICC) of WSS was .756 (adequate is .72 but .8 is preferred), denoting moderate reliability level. Validity of multiple instruments used in the study was studied before including validity of Occupational stress scale: (Zaghloul, 2007). The mean intergroup aggregation (rwg) was 0.608 denoting average intergroup aggregation

According to Golafshani (2003), effective dealing with the research questions and study objectives refer to validity. Reliability considered when output of the study is consistent with time and accurately present the groups in the study individually. Valid instruments are needed for the investigator in order to be reliable.


An important aspect affecting satisfaction of the families of patients admitted to the ICU is the time allowed for visits. In some ICUs there is a limited time per day for the
relatives of the patient to speak with clinicians and to see their family member (for examples 1-2 hours a day). On the contrary, in the so called “open ICUs”, there is no limitation of time, and the families can make a visit to the patients in every hour of the day. I think this element may strongly affect the family’s level of satisfaction.

How are the visits organized in your ICU? Is there a limited time for the families to see the patients?

Our surgical ICU may better be classified as a semi-closed ICU. Patient relatives are allowed to have a scheduled visit to the ICU in the morning and evening just after the multi-disciplinary rounds. Patient clinical condition and the plan of care was discussed with the relative during this visit. There was no restriction on the time relatives could spend with the patients; we did record this ICU commuting time as one of our observations. If the relatives did not show up during the scheduled visit, they were allowed visit at any time of the day according to their convenience, and the available physician in the ICU would give the briefing. Patients having ICU delirium or who are at risk of developing the same were allowed more time with the family members.

We are following practice support liberal visits in ICU unless it conflicts with routine patient care; which is supported by the following article:

Facilitate unrestricted access of hospitalized patients to a chosen support person (eg, family member, friend, or trusted individual) who is integral to the provision of emotional and social support 24 hours a day, according to patient preference, unless the support person infringes on the rights of others and their safety, or it is medically or therapeutically contraindicated. [Level D]

Available at:


Accessed (6 April 2015)
Please describe this aspect in the methods and address this issue in the discussion. The authors state among recommendations and future directions that “Senior physicians should relay information to families to maximize satisfaction levels.” This sentence cannot be justified, and has no rational.

This is based on our observation that senior physician relaying information is associated with better family satisfaction. We can remove this recommendation if it is still not convincing.

The authors well explain why the families may prefer receiving information from a senior doctor, and that makes sense. However, this practice should not be openly encouraged: young doctors are not necessarily worse than senior doctor (this is a preconcept of the relatives of the patients). On the contrary, future efforts should be aimed at educating the families that age of the physicians transferring the clinical information is not a relevant variable, and at the same time younger doctor should be better trained in communication with the patients’ families. Please expand the limitation sessions.

We do fully agree that training is important in good communication skills, but experience is also of equal importance. Clinician gets more confidence and proficiency in communicating with the family with higher exposure. We will stress on training physicians on communication skills on the limitations section. The reason is that was our observation (senior physician preference) in our community which we strongly think that it needs understanding in order to go with the right intervention, but as you mentioned we cannot recommend senior physician in family’s interaction especially we are limited by the availability and the work schedule. Our observations were corroborated by previous literature

Minor essential revisions The text requires extensive English revisions. I list the most relevant corrections, but revision of the text by a native English speaker is strongly recommended. Line 86-87: I don’t understand the meaning of the sentence. Please rephrase.

The given lines rephrased and English underwent editing by professional editor (Edanz as recommended by the BMC reviewers and Editor).

Line 103-105: the sentence is not clear, please revise English language.

Corrections made.

Line 240-45: English is not correct.

Please rewrite Line 257-8: it is not clear…please rephrase.

Corrections made.

Table 2: explain TISS score

TISS- Therapeutic intervention scoring system – Keene AR et al. (1983) Is a scoring system denoting the intensity of interventions carried out on the patient. The total maximum score is 78. Interventions are given scores ranging from 1-4 depending on the severity. The intervention severity will be assigned to one of the 4 classes depending on the severity. We have included the scoring system as appendix 2.


Level of interest: An article of limited interest.

Quality of written English: Not suitable for publication unless extensively edited.

The English part underwent revision by native English speaking colleague followed by the recommended professional editor (Edanz).
Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests: I declare that I have no competing interests

Editorial requirements:
Thank you for the overall effort done for extensively reviewing our manuscript
1. Kindly place the Acknowledgement before the Abbreviations.
   Placed
2. Please include name of Ethics Committee.
   Included (Hamad medical corporation-Institution review board)
3. We recommend that you copyedit the paper to improve the style of written English. If this is not possible, you may need to use a professional language editing service. For authors who wish to have the language in their manuscript edited by a native-English speaker with scientific expertise, BioMed Central recommends Edanz (www.edanzediting.com/bmc1). BioMed Central has negotiated a 10% discount to the fee charged to BioMed Central authors by Edanz. Use of an editing service is neither a requirement nor a guarantee of acceptance for publication. For more information, see our FAQ on language editing services at http://www.biomedcentral.com/authors/authorfaq/editing.
The given lines rephrased and English underwent editing by professional editor (Edanz as recommended by the BMC reviewers and Editor)