Author's response to reviews

Title: Patient satisfaction in an acute medicine department in Morocco

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Author's response to reviews: see over
Dear Prof Hannah Clark

Many thanks for your decision letter dated 11 February concerning the manuscript MS: 1648328616339679 - Patient satisfaction with healthcare admitted to acute medicine department in Morocco.

Many thanks also for the priority you have offered us to revise the work; so we are glad to send you the revised manuscript where the modified sentences were written in red. Indeed, we join to this letter our point-by-point response to the reviewers.

Thank you again for your support concerning our study.

With best regards,
Prof. Redouane Abouqal

Here are the responses to the reviewers:

**Responses to reviewer Marloes Zuidgeest:**

**Abstract:**
- In methods section, a prospective survey is mentioned. In the document later on, they mention the method was face-to-face interviews (p8). Please make clear in the abstract that the used method was interviews:
  
  This was a patient’s survey conducted in an acute medicine department of Moroccan University Hospital. We surveyed socio demographic status, and health characteristics of patients at admission. We performed structured face to face interviews with patients who were discharged from hospital. *(Page 2, abstract (method section), line 1).*

- I miss the Cronbachs alpha in the results. They only mention that the Arabic version has excellent internal consistency: internal consistency for each domaine (MI and RS) have been added.

  The Arabic version of EQS-H demonstrated excellent internal consistency for the two factor (0.889 for quality of medical information (MI) and 0.906 for Relationship with staff (RS)). *(Page 2, Abstract (result section), line 1).*

- The conclusion is a sum of the results. Can the researchers make a general conclusion?

  Our current data assessing patient satisfaction with acute health care by the Arabic version of the EQS-H showed that the satisfaction rate was average on MI dimension; and good on RS
dimension of the questionnaire. The majority of participants were satisfied with the overall care. Demographic, socioeconomic and health characteristics may influence in-patients satisfaction in Morocco, a low/middle income country. An appreciation and understanding of these factors is essential to develop socio culturally appropriate interventions in order to improve satisfaction of patients. (Page 3, Abstract (conclusion section)).

Introduction:

- The objective of the study (research question) was reformulated:

  The first objective of the present study was to confirm the reliability and validity of the Arabic version of the EQS-H. The second objective was to evaluate patient satisfaction in an acute medicine department in Morocco using the EQS-H questionnaire and to assess the influence of certain demographic, socioeconomic and health characteristics in patient satisfaction. (Page 5, (background section) line 28)

- I miss connexion with the Arabic version of EQS-H: we added at the introduction of a connection with the questionnaire.

  The EQS-H is an in-patient global satisfaction questionnaire, that should be applicable to most patients admitted to hospital units, whatever their autonomy [16]. The dimensions explored by the EQS-H are not limited to the French healthcare system. Further scale validation in other countries and cultures is required, since it would facilitate cross-cultural studies of health care service quality [16]. Because of the lack of EQS-H instruments in Arabic, this paper presents and discusses the EQS-H adapted into Arabic in terms of applicability and subject acceptance, psychometric performance and validity; as well as the cross-sectional relationship with a selected list of demographic, socioeconomic and health characteristics. (Page 5, (background section) line 1).

  We added on supplementary material (Additional File 1) the Arabic version of EQS-H questionnaire: The file presents the access version of the questionnaire

Methods:

- See comment about introduction: A prospective survey or interview:

  This was a survey of patients conducted in an acute medicine department of Rabat University Hospital between September 2008 and January 2009. (Page 6, (Study Design and Setting) line 1)
All this data were collected on admission. The day before discharge, patients were approached by independent, trained and research assistants. They explained the purpose of the study when patients agree to answer; they invited them to take part and interviewed them face-to-face inside the meetings, and courses room. (Page 6, data collection section, line 7).

- p.5 instrument. You declare that the five-point scale range from 0-4. If this is correct the dimension range is 0-32 and final score is 64. Later on it becomes clear that the five point scale range from 1-5, so the dimension score is 4 - 40 and the final score is 80 (with minimum of 8). Please clarify this point.

Indeed, we have made an error in the formulation:
The EQS-H questionnaire is a self-report instrument comprising 16 items, covering two very important domains of patient satisfaction, “Quality of medical information” (MI) (8 items) and “Relationship with staff and daily routine” (RS) (8 items). It consists of 16 items; each item is rated on a five-point scale ranging from 1 to 5 (poor, moderate, good, very good and excellent), the final satisfaction score is calculated as the sum of all 16 items scores [16]. This allows calculating 3 scores: a score for each dimension and an overall score. The score of each dimension varies from 8 to 40 and the final score to 80 (with 16 being the minimum and 80 being the highest level of satisfaction equal to 100%).

(Page 7, instrument section, line 2).

Results:
- In the results you refer to SQ 3 times in stead of MI. Please stay consequent in abbreviations.

SQ 3 times in stead of MI has been corrected in page 10; in reliability section: 1 times (line 2) and in factor structure section: 2 times (line 4 and 5)).

- P. 9. I do not understand the sentence ‘the highest values (3.61) were observed for RS dimension’.

The range of a dimension is 4-40. The highest mean value (3.61) was observed for the item (I could identify the doctor in charge of me) which is part of the RS dimension (page 10 descriptive statistics of the subscales section line 4). This number is the mean score (1 to 5) in the item (I could identify the doctor in charge of me) which is part of the RS dimension.

- !!! In table 2 the authors declare that there is a difference for MI dimension for residence (P=0.001). The results show the same scores for residence urban and rural (namely 20.9 +/- 6.5). The results are not correct or the P value is not correct. Please clarify this point.
Table 2 is renamed 3, since a table was added. Effectively, it is a clerical error. The value of rural residence in for MI dimension: is false. The fair value was 18 ± 5.1. This has been corrected in table 3 page 23.

**Discussion:**

- The discussion is very long. You can be more to the point.
  The discussion has been renovated with discussion point and shortcut
- The discussion about data collection methods is irrelevant.
  Discussion about data collection methods is very long and corresponds to a general review, you not find it pertinent, she was abducted.
- You decided to have face-to-face interviews. You can put this in the methods.
  Quite the discussion of the methodology section was included directly in the method part:

  All this data were collected on admission. The day before discharge, patients were approached by independent, trained and research assistants. They explained the purpose of the study, when patients agree to answer, invited them to take part and interviewed them face-to-face inside the meetings, and courses room. Most intensive contact so can probe more captures people who are unable to use selfcompletion questionnaire [18]. Studies which used a face to face approach to either subject recruitment (mean response rate, 76.7%) or data collection (mean response rate, 76.9%) were associated with significantly higher response rates than those in which subjects were recruited by mail (mean response rate, 66.5%) or data were collected by mail (mean response rate, 67%) [19]. The timing of questionnaire administration plays an important role. This period should not be too long, so that the answers are specific to the hospitalization [20]. Crow et al [18], in analyzing 4 studies assessing the administration time of the questionnaire among hospitalized patients have not shown conclusive results. We administered the questionnaire to patients on the day of discharge, in order to obtain a higher response rate. Interviewing patients during their consultations visit at 2 weeks after discharge may result in a lower participation rate; besides, some patients may not return. *(Page 6 method section line 9)*
- You can make remarks about the variables of patient characteristics and significant factors!

  The second paragraph of the discussion (page 12) focused in particular on this point in order to respond to your comment: Seven variables describing demographic, socioeconomic
and health characteristics of patients were significant in at least one satisfaction dimension equation, and variables that appeared in more two dimension equation were consistent in their directions of influence……

I miss the connection with the EQS-H questionnaire. Are there differences between the results of this questionnaire?

**Minor Essential Revisions**

**TITLE:**

- Perhaps the title can be reframed.

In response to your suggestion and that of the second and reviewers we chose the following title:

**Patient satisfaction in an acute medicine department in Morocco**

- Use the same spelling of words: Morocco- Moroccan (p2, 4); inpatient impatient (p. 2);
- Capital letters in a sentence: Satisfaction (p 7), Assessed (p 2, 14)
- reperted -> reported (p7), ghideline (p8) -> guideline ?

These remarks were considered and the errors have been corrected.

- Sentence about ‘it was hypothesized that a two factor solution would be obtained with eigen values greater than 1’. Eigen values > 1 is a assumption which indicate a factor. This sentence has no added value (p 7).

This sentence has no added value was deleted
Responses to reviewer Nicolien Zwijnenberg:

Major Compulsory Revisions

1- The question posed by the authors is not well defined. The aim of the study is ‘to evaluate patient satisfaction with health care using the EQS-H questionnaire and to assess the determinant of patient satisfaction in an acute medicine department in Moroccan’ (p. 2). *(First part of the question 1)*

For better clarity of purpose that has been reformulated:

The first objective of the present study was to confirm the reliability and validity of the Arabic version of the EQS-H. The second objective was to evaluate patient satisfaction in an acute medicine department in Morocco using the EQS-H questionnaire and to assess the influence of certain demographic, socioeconomic and health characteristics in patient satisfaction. *(Page 5, (background section) line 28)*

1. However, the article is mainly focusing on the latter. In the conclusion and abstract is not stated whether patients in this medicine department are satisfied at all. *(second part of the question 1)*

We added a chapter on the overall satisfaction in the results and Table 2 *(page 22: Descriptive results of the questionnaire)* gives the percentages of patient satisfaction in our service:

**Overall Satisfaction**

The satisfaction rate was average on MI dimension; and good on RS dimension of the questionnaire. The majority of participants were satisfied with the overall care (Table 2). 20% of the participants responded to the open-ended question. They complained about the lack of attention, the lack of empathy of nurses especially at night, the lack of information about the disease. They also complained about the excessive number of patients in the common rooms and about the poor quality of sanitary equipments. *(Page 10 result (overall satisfaction section))*

This result was also added in the abstract and conclusion.

Our current data assessing patient satisfaction with acute health care by the Arabic version of the EQS-H showed that the satisfaction rate was average on MI dimension; and good on
RS dimension of the questionnaire. The majority of participants were satisfied with the overall care. (Page 3 (abstract conclusion section))

Our current data assessing patient satisfaction with acute health care by the Arabic version of the EQS-H showed that the satisfaction rate was average on MI dimension; and good on RS dimension of the questionnaire. The majority of participants were satisfied with the overall care. (Page 15 conclusion section)

2 - First part of the question 2: The results of the multivariate analysis (table 3) showed that the factor ‘prior hospitalization’ (more than 2) was also associated with higher patient satisfaction (p=0.008). In the text this is not mentioned.

Table 3 is now numbered 4

Linear regression shows that four independent factors were associated with higher satisfaction in MI; more than 2 prior hospitalization (P=0.008), Longer length of stay (10-14 days) (P=0.002), staying in double room (P=0.022), and better perceived health status compared to admission (P=0.036). (Page 12 multivariate analysis (quality of medical information))

- Second part of the question 2: The results of the univariate analysis (table 2) showed furthermore that the scores on the factor ‘residence’ are equal for ‘urban’ and ‘rural’. However, in the text and the table is presented a P-value of 0.001. So the P value is incorrect or one of the subscale scores is incorrect.

Table 2 is now numbered 3

Effectively, it is a clerical error. The value of rural residence for MI dimension: is false. The fair value was 18 ± 5.1. This has been corrected in table 3 page 23.

3- First part of the question 3: The manuscript does not completely adhere to the relevant standards for reporting and data deposition. Example 1: The article starts with the ‘Introduction’ in stead of ‘Background’. Example 2: the ‘Method’ section in this manuscript is called the ‘Materials and methods’ section. Example 3: the subheading ‘Conclusion’ has to be ‘Conclusions’. For the data deposition, These remarks were made in the text.

Second part of the question 3: The table legend text has to be stated above the table in stead of under the table.

We checked recommendations to the authors of the review it was ascertained that the table legend text has to be stated under the table.

4. Before publishing, extensive editing is recommended.
1) Verbs are sometimes incorrectly conjugated. Example: Abstract (p2, Conclusion) ‘Our current data…in general. Assessed has to be Assessing.

2) Sometimes single words are used when plural words are needed. Example: Abstract (p2, Results). “Three independent factor…in general (P=0.006). factor has to be factors. Introduction (p4), last sentence: to assess the determinants of … (s is missing).

3) And in the manuscript sometimes the incorrect tense is used (especially in the method section) and the structure/meaning of sentences is sometimes unclear (for a couple of examples: see ‘minor essential revisons’).

These remarks were considered and the errors have been corrected in the text, and we conducted an overall correction of text language.

5- The structure of the introduction is not clear.

First part of the question 5: What exactly are the keys messages of the introduction? The key messages of each paragraph are not well formulated or are sometimes overlapping.

Second part of the question 5: Furthermore, the EQS-H questionnaire is not introduced properly in the introduction. There is only stated that this questionnaire is translated in Arabic for this study. But what kind of questionnaire is it? My suggestion would be to introduce the EQS-H already in the introduction, rather than in the methods section. So, some parts of the manuscript can be moved to the introduction. Example 1: ‘These two domains…resulting care provision (second paragraph, instrument section). Example 2: The EQS-H is an ….studies of health care services quality’ (last paragraph on page 6).

I removed the repeated ideas and clarified the purpose of the questionnaire based on your suggestions:

- The first paragraph I introduced by the interest of measuring the satisfaction, and give a definition.

Respect for patients’ needs and wishes is central to any humane health care system [1]. Quality of health services was traditionally based on professional practice standards, but over the last decade, patients’ perception about healthcare has been predominantly accepted as the important indicator for measuring quality of health care and as a critical component of performance improvement and clinical effectiveness [2]. Measuring healthcare quality and improving patients’ satisfaction become increasingly prevalent, especially among healthcare providers and purchasers of healthcare, because consumers are increasingly becoming more knowledgeable about healthcare [3]. Indeed, patient satisfaction is widely considered as an integral part of the quality of care [1]. Pascoe has defined it as a health care recipient’s reaction to salient aspects of his or her experience of a
service. In his formulation, satisfaction is assumed to consist of a cognitive evaluation and an emotional reaction to the structure, process and outcome of services [4].

- The second paragraph: historical of measuring satisfaction

Since the 1990s, measuring patient satisfaction has come to be regarded as the method of choice for obtaining patients’ views about their care and has been adopted widely as an outcome indicator of quality of care [9, 10]. Most researchers agree that patient satisfaction is a multidimensional concept; however, no consensus exists regarding which dimensions of care should be evaluated to measure patient satisfaction [11, 12].

- The third paragraph: the various approaches proposed for measuring satisfaction.

Several approaches have been used to try to identify the factors contributing to satisfaction with healthcare [5]. A distinction is made between those based on expectations, those focusing on health service attributes, those emanating from economic theory, and those that are holistic in nature [5]. Approaches based on health service attributes attempts to clarify the concept of satisfaction; they also focused on consumers’ evaluations of health service attributes. These methods use reviews of the available literature or primary research techniques to produce lists of critical features that affect satisfaction with healthcare. These features are often incorporated into factor or principal components analysis to validate definable dimensions to the care process. The classifications produced may subsequently form the basis for the development of instruments to measure satisfaction [6-8].

- The fourth paragraph: I brought the instrument that we used in defining it according to your suggestions (Second part of the question 5 )

In line with previous studies and the literature [19,24], socio-demographic, medical and hospital-stay characteristics in relation to patient, EQS-H scale (échelle de qualité des soins en hospitalisation) were used. The EQS-H questionnaire is a self-report instrument comprising 16 items, covering two very important domains of patient satisfaction: “Quality of medical information” (MI) (8 items) and “Relationship with staff and daily routine” (RS). These two domains (MI and RS) are related to interpersonal aspects of care, which both predictors of patient opinion are on care [27]. The EQS-H is an in-patient global satisfaction questionnaire, which should be applicable to most patients admitted to hospital units, whatever their autonomy [26]. The dimensions explored by the EQS-H are not limited to the French healthcare system, and further scale validation in other countries and cultures is required, since it would facilitate cross-cultural studies of health care service quality [26].
- The fifth paragraph (as per your suggestion in question 39) I give an explanation about a health care system in Morocco.
- Finally the objective of the study that also was reworded.

6. It is also difficult to read the discussion and to get grip on the key messages. The discussion merely exists of a summation of research findings of other studies, but this is not well structured and little reflection of the results of this manuscript is presented here. So, the discussion has to be more structured and try to be clear and to the point when presenting other research findings.

    Following your comments about the discussion that has been completely rewritten, shortened, with discussion focusing mainly on overall satisfaction and different determinants retained in univariate and multivariate analysis. With an overall conclusion, targeting the socio economic of our country. (from page 11..).

**Minor Essential Revisions**

**General:**

7. The title is not correctly formulated (patient satisfaction can not be admitted).

   We reframed the title based on your suggestions:
   
   Patient satisfaction in an acute medicine department in Morocco

8. Consistency in terms. In the manuscript aspects are described with different terms. It is better to use terms consistently. Example 1: In this study factors associated with patient satisfaction are studied. But these factors are called aspects, determinants, variables or factors. Use one term for this. Example 2: demographic, socioeconomic and health characteristics are also called patient and care characteristics (first sentence of discussion), or socioeconomic, environmental and health variables (last paragraph of introduction). Be more consistent in the terminology.

   These remarks were considered and others errors in consistency in the terminology have been corrected in the text.

   For the first example the variable term has been retained.

   For the second example the sentence “demographics, socioeconomic, and health characteristics” has been standardized: (page 2 line 9); (page 3 line 6); (page 4 line 28); (page 5 line 9 and last line); (page 12 line 26), and legend of table 3.

**Abstract:**
9. Method section: core concepts of EQS (quality of medical information and relationship with staff) are missing in the abstract.

The core of the EQS-H (échelle de qualité des soins en hospitalisation) questionnaire was translated into Arabic, adapted to the present setting, and used to measure patient satisfaction with quality of care. (page 2 line 4 in methods section of abstract)

10. Methods section: the univariate analysis is missing.

In the univariate analysis, urban residence, higher income, better perceived health status compared to admission, better perceived health status compared to people of the same age, and satisfaction with life in general were related to MI dimension. Otherwise, male gender, urban residence, higher income, staying in double room, better perceived health status compared to admission, and satisfaction with life in general were related to RS dimension. (Page 2 line 5 in result section of abstract)

11. Results section: alpha of the EQS-H is not presented:

The Arabic version of EQS-H demonstrated an excellent internal consistency for the two dimensions studied [0.889 for “quality of medical information” (MI) and 0.906 for “Relationship with staff and daily routine” (RS)]. (Page 2 line 1, result section of abstract)

Materials and Methods:

12. The methods used are appropriate but the method section is described confusingly and the order is misleading.

Example 1: (data collection): in this section nothing is said about how data are collected. Instead, the demographic, socioeconomic and health characteristics which are measured are presented. This part belongs to the ‘instrument’ subheading. The part ‘Patients were approached…...and course room’ (p. 6) belongs to the data collection subheading.

The section data collection has been reformulated. I explained the type and how data are collected. These points were discussed in this part to your suggestions in a later remark.

Demographic characteristics included age, gender, marital status (unmarried/married), residence (urban/rural), and distance from patient’s home to hospital (≤50km, >50km). Socioeconomic characteristics included education level (no education, primary, secondary and more), monthly income (none, less than 180 euro, more than 180 euro), health insurance status (yes, no), and prior hospitalizations in the hospital studied (none, less than 2, more than 2). Health characteristics measured at admission included type of admission (emergency or scheduled), admission room (double/common). All this data were collected on admission. The day before discharge, patients were approached by independent, trained and research
assistants. They explained the purpose of the study, when the patients agree to answer, they invited them to take part and interviewed them face-to-face inside the meetings, and courses room. Most intensive contact so can probe more Captures people who are unable to use selfcompletion questionnaire [18]. Studies which used a face to face approach to either subject recruitment (mean response rate, 76.7%) or data collection (mean response rate, 76.9%) were associated with significantly higher response rates than those in which subjects were recruited by mail (mean response rate, 66.5%) or data were collected by mail (mean response rate, 67%) [19]. The timing of questionnaire administration plays an important role. This period should not be too long, so that the answers are specific to the hospitalization [20]. We administered the questionnaire to patients on the day of discharge, in order to obtain a higher response rate. Interviewing patients during their consultations visit at 2 weeks after discharge may result in a lower participation rate; besides, some patients may not return. Crow et al [18], in analyzing 4 studies assessing the administration time of the questionnaire among hospitalized patients have not shown conclusive results. After completion of the questionnaire, other variables were collected. Quality of life characteristics included perceived health status compared to admission (same, little better, much better), perceived health status compared to people of the same age (better, same, worse), and satisfaction with life rated with a scale of 1 to 10. An open-ended question was asked (In your opinion, what would be the priorities for improvement in this department). Length of stay in service (Less than 6 days, 7 to 9 days, 10 to 14 days, More than 14 days) has also been assessed. (page 6; methods (data collection section)) Example 2: (statistical analysis): the order in which the analyses are described is misleading. It is better to start with describing the internal consistency and factor structure of the questionnaire and then the univariate and multivariate analysis. In this manner the results are also presented.

Data are presented as mean ± standard deviation or frequency values expressed as a percentage. The internal consistency of the EQS-H items was assessed using Chronbach’s coefficient alpha; a high alpha coefficient (≥ 0.70) suggests that the items within a scale measure the same construct and support the construct validity [25,26]. The factor structure of the questionnaire was extracted by the performing both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Exploratory factor analysis was performed using the principal component analysis with varimax rotation. Confirmatory factor analysis was performed while a two factor model (MI and RS) was specified for the analysis [27]. To assess the fit of model to our data adequately,
we computed Goodness-of-Fit Index (GFI), Comparative Fit Index (CFI), and Root Mean Square of Approximation (RMSEA). The recommended cuts off values for acceptable values are ≥ 0.90 for GFI and CFI. Cut off value < 0.05 indicate a close fit and values below 0.11 are an acceptable fit for RMSEA. [27, 28].

Concerning univariate analysis, statistical difference between groups were evaluated by the t-student test for comparison between 2 groups, and one-way analysis of variance (ANOVA) for more than 2 groups. The Pearson correlation coefficient ($r$) was calculated to describe the relationships between satisfaction with life and two domains of patient satisfaction: MI and RS. Variables with a $p \leq 0.25$ by univariate analysis were selected for inclusion in a multivariate analysis. Multivariate analysis was performed using multiple linear regression analysis. $\beta$-regression coefficients and their significance from multiple linear regression analysis were reported. A two-tailed $p < 0.05$ was considered statistically significant.

All statistical analyses were carried out using SPSS for Windows 13.0 (SPSS, Inc., Chicago, IL, USA) and AMOS version 4.0 [29]. (Statistical analysis page 8)

13. Study design: The sample was therefore representative of the overall population of patients who visit the hospital’. The key chain of reasoning of this sentence is not clear.

Our service supports patients who belong to various medical emergencies Medical representing all medical specialties of the hospital. For this reason, I considered this population as representative sample of the overall population of MEDICAL (missing term) patients who visit hospital. This sentence lends confusing and may be over-estimated. This sentence was deleted.

14. Study design: ‘Times of family visit….20h’. Is this relevant information?

This may be irrelevant. I have tried to give the maximum of information for the reader in our context. This sentence was deleted.

15. Study design: ‘Informed consent …all patients. How is informed consent obtained?

The day before discharge, patients were approached by independent, trained and research assistants. They explained the purpose of the study, when the patients agree to answer, invited them to take part and interviewed them face-to-face inside the meetings, and courses room.

16. Inclusion and exclusion: ‘Patients with serious…were excluded’. This sentence is not complete. This sentence has been completed: missing word “difficult”
Patients with serious physical or mental pathologies, such as terminal disease and psychosis, which could make the comprehension and completion of the questionnaire difficult, also were excluded. (Page 6, line 2 inclusion and exclusion criteria)

17. Data collection:
Length of stay in service (answer opportunities are missing).
The answer opportunities are added:

Length of stay in service (Less than 6 days, 7 to 9 days, 10 to 14 days, More than 14 days) has also been assessed. (Page 7, line 13 (data collection section)

18. Instrument:
‘The score of each…to 80’. If the questionnaire contains 16 items and the maximum score on each item is 4 points, how is it possible to reach an 80 point score? (16*4=64).

Indeed we have made an error in the formulation: The EQS-H questionnaire is a self-report instrument comprising 16 items, covering two very important domains of patient satisfaction, “Quality of medical information” (MI) (8 items) and “Relationship with staff and daily routine” (RS) (8 items). It consists of 16 items; each item is rated on a five-point scale ranging from 1 to 5 (poor, moderate, good, very good and excellent), the final satisfaction score is calculated as the sum of all 16 items scores [26]. This allows calculating 3 scores: a score for each dimension and an overall score. The score of each dimension varies from 8 to 40 and the final score to 80 (with 16 being the minimum and 80 being the highest level of satisfaction equal to 100%). (Page 7, line 2 of instrument section).  

19. Instrument: ‘After issue of a summary of results…not widely publicised [34]’. What is said here?

I expressed through studies of patient satisfaction with care community. highlighting the improvement efforts of hospital staff in several units. However, these results are frequently under-used by healthcare teams with should first use these results before considering the distribution of the questionnaire. These sentences are complicated to understand, they were deleted.

20. Statistical analysis: First paragraph. It is not clear that this is about the univariate analysis. The analysis can be reported more clearly.

This paragraph has been clarified and put in second position after the factor analysis. concerning univariate analysis, statistical difference between groups were evaluated by the t-student test for comparison between 2 groups, and one-way analysis of variance (ANOVA) for more than 2 groups. The Pearson correlation coefficient (r) was
calculated to describe the relationships between satisfaction with life and two domains of patient satisfaction: MI and RS. Variables with a $p \leq 0.25$ by univariate analysis were selected for inclusion in a multivariate analysis. (Page 9 line 12)

21. **Statistical analysis**: ‘there are varying suggestions….confirmatory factor analysis’ No references are mentioned.

   This was the same reference as the next sentence. Since this part was reworded to your suggestion, this sentence has been removed.

22. **Statistical analysis**: goodness of fit indicators. The explanation of these is not always formulated properly (no correct sentences). Also CFI is not explained.

   Considering these remarks and latter remarks (26, 38), statistical Analysis section has been reformulated:

   The factor structure of the questionnaire was extracted by the performing both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Exploratory factor analysis was performed using the principal component analysis with varimax rotation. Confirmatory factor analysis was performed while a two factor model (MI and RS) was specified for the analysis [27]. To assess the fit of model to our data adequately, we computed Goodness-of-Fit Index (GFI), Comparative Fit Index (CFI), and Root Mean Square of Approximation (RMSEA). The recommended cuts off values for acceptable values are $\geq 0.90$ for GFI and CFI. Cut off value $< 0.05$ indicate a close fit and values below 0.11 are an acceptable fit for RMSEA. [27,28]. (page 8 line 2)

**Results:**

23. **Characteristics of subjects**: Last sentence: health characteristics are missing.

   This sentence has been corrected and missing word has been replaced.

   The demographics, socio economics and health characteristics are summarized in table 3.

24. **Reliability**: ‘The internal consistency reliability levels’. It is the internal consistency OR the reliability of….

   The internal consistency levels (Chronbach’s alpha coefficients) for the two factors were 0.889 for MI and 0.906 for RS. The Chronbach alpha coefficient for the overall satisfaction scale was 0.919. (page 10, reliability in psychometric properties of EQS-H scale)

25. **Factor structure**: “Eigen values…respectively”. In this sentence it is not clear which eigen value belongs to which factor.
Principal component analysis with varimax rotation loaded two factors. The results are summarized in table 1. Eigen values for the two factors that explained most of the variance observed was 4.52 for RS dimension and 1.37 for MI dimension. (page 9 factor structure section)

26. Factor structure: “RMSE” = RMSEA?.

2 RMSE have been replaced by RMSEA

27. Factor structure and descriptive statistics of subscales: in these sections the subscale MI is now replaced for QS:

SQ 3 times in stead of MI has been corrected in page 10; in reliability section: 1 times (line 2) and in factor structure section: 2 times (line 4 and 5)).

Discussion:

Following your comments about the discussion that has been completely rewritten, shortened, with discussion focusing mainly on overall satisfaction and different determinants retained in univariate and multivariate analysis. With an overall conclusion, targeting the socio economic of our country.

28. ‘Our study showed…of influence’ (first sentence). Understanding the first sentence is difficult.

Seven variables were significant in one satisfaction dimension; its appearance in the second dimension supports its influence on satisfaction. This sentence was reframed.

Seven variables describing demographics, socioeconomics, and health characteristics of patients were significant in at least one satisfaction dimension equation, and variables that appeared in the second dimension were consistent in their directions of influence. (page 12 line 26).

29. ‘After adjustment for experience’, (p11). What is meant by experience?

After adjusting for variables selected by univariate analysis

30. ‘They disadvantage, or exclude….of the relatives’ (p 13). What is said in this sentence?

The low literacy in the study population is a real problem. The conduction of the survey directly by the investigator was retained not to exclude people with poor literacy.

This idea has already been explained in the methodology section, it has been eliminated.

31. ‘But others did…mean responses’ (p 13). References are missing.

But others did not find that timing had any effect on mean responses [1]

32. Although the limitations of the work are clear, these can be described shorter and tighter. I made some small deletion in the limitations. Removed sentence: They disadvantage, or exclude, people with poor literacy skills, but the problem of the low literacy in Morocco yielded to a self-administration or administration by the same investigator following the level of education of the relatives.

33. Start a new paragraph when the limitations of the study are presented.

This paragraph was added on page 14

Discretionary Revisions

34. It is interesting to know what the original validity and reliability is of the EQS-H.

The EQS-H questionnaire is a questionnaire developed and validated in France. Chronbach’s coefficients were excellent: respectively 0.92 for MI, 0.93 for RS and 0.95 for the 16 items EQS-H Scale overall. The factor analysis confirmed the bidimensional structure of the questionnaire [16].

35. The reliability and validity of the Arabic version of the EQS-H could also be an aim of this study. The first objective of the present study was to confirm the reliability and validity of the Arabic version of the EQS-H. The second objective was to evaluate patient satisfaction in an acute medicine department in Morocco using the EQS-H questionnaire and to assess the influence of certain demographics, socioeconomics, and health characteristics in patient satisfaction. (page 5 line 25)

36. The titles of the tables can be formulated more precisely; what data is presented in the table?
- Table 1: Results of factor analysis of EQS-H questionnaire.
- Table 2: EQS-H questionnaire and distribution of the replies.
- Table 3: Results of univariate analysis of demographics, socioeconomics, and health characteristics.
- Table 4: Multivariate analysis by relevant variables

37. In one table the subscales of the questionnaire are formulated completely, in the other table abbreviations for these subscales are used. It is neater to use one of these methods.
In Table 4: Quality of medical information has been replaced by MI, and relationships with staff and daily routine was replaced by RS. (page 24)

38. Is it necessary to use all the goodness-of-fit indicators?

Indeed, it is not necessary to use all the indicators. It was used as the goodness-of-fit indicators: RMSEA, GFI, and CFI

39. I would like to suggest to explain more about the healthcare system in Morocco in the introduction. How is healthcare organised in Morocco and is patient satisfaction in Morocco already an important issue? For readers of this article it is relevant to have this background information.

Morocco has a total population of 31,285,174, gross national income per capita is $3,860, life expectancy at birth is 70 years for men (m) and 74 years for women (w), Healthy life expectancy in 2003 at birth is 59 years (m) and 61 years (w), probability of dying under five is 37 per 1 000 live births, probability of dying between 15 and 60 years is 147 (m)/90 (w) per 1 000 population, total expenditure on health per capita in 2006 is $273. The health budget corresponds to 1.1 percent of gross domestic product and 5.5 percent of the central government budget. Morocco has inadequate numbers of physicians (0.5 per 1,000 people) and hospital beds (1.0 per 1,000 people) and poor access to water (82% of the population) and sanitation (75% of the population). The health care system includes 122 hospitals, 2,400 health centers, and 4 university clinics, but they are poorly maintained with inadequate capacity to meet the demand for medical care. Only 24,000 beds are available for 6 million patients seeking care each year, including 3 million emergency cases [17]. Morocco has two major health sectors, public and private, said to be complementary rather than competitive. Patients may choose whether to attend primary or secondary, public or private care. The majority of Moroccans in employment pay for health insurance, which covers most, but not all, of health expenses within the public and private sector.

40. In the discussion/conclusion questions like ‘What is the surplus value of this study?’ and ‘What is the (inter)national relevance of the results of this study?’ are lacking. In my opinion, it is good to focus on these aspects in the discussion/conclusion as well, rather than only focusing on the fact that it is difficult to explain factors affecting patient satisfaction. This study is contributing to more insight in factors affecting patient satisfaction. Besides, it is the first study in which patient satisfaction is measured in Morocco.

Conclusions
Our current data assessing patient satisfaction with acute health care by the Arabic version of the EQS-H showed that the satisfaction rate was average on MI dimension; and good on RS dimension of the questionnaire. The majority of participants were satisfied with the overall care. We have discovered a large number of potential barriers and facilitators that may influence in-patients satisfaction in Morocco, a low/middle income country. Satisfaction is a multi-dimensional concept that is part of complex model. An appreciation and understanding of these factors is essential in order to develop socio-culturally appropriate interventions to improve satisfaction of patients. These data underline cultural specificities and financial constraints of our population. A plan of economic and social development is in action, and to improve the image of the public hospital sector and make it more competitive is among its functions [46]. However, Theories of human behaviour may offer useful means of understanding factors such as motivation and designing strategies to change practice. This suggests, that caregivers should develop structured communication programs considering satisfaction predictors (by the improvement personalized approach, clarify and facilitate the comprehension of medical information in a context where illiteracy is more than half of patients admitted. Whatever the level of development of a country, the importance of a patient-centred approach is now widely recognized. (page 15)