

# Journal Critique:

## Personal & Professional Development

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# Objectives

By the end of the session, the student should be able to

1. state a definition for journal critique.
2. state the purpose and provide a rationale for completing a journal critique.
3. list the necessary elements/questions in a journal critique.

# WHY DO WE READ CLINICALS JOURNALS?

- **To impress others**
- **To keep abreast of professional news**
- **To understand pathobiology**
- **To find how handles a particular problems**
- **To find out whether to use a new diagnostic test**
- **To learn the clinical course and prognosis of a disorder**
- **To determine etiology or causation**
- **To distinguish useful from useless or even harmful therapy**
- **To study cost-effectiveness, quality of health care services.**

# WHY DO YOU READ CLINICALS JOURNALS?

- **PPD suruh**
- **Kena buat literature review untuk MS2**
- **Kena buat literature review untuk SSM.**



## Good Eggs: For Nutrition, They're Hard to Beat

The egg is no longer a nutritional no



Save This Article For

By Kathleen M. Zelman, M  
WebMD Weight Loss Clinic - Expert Column

What would we do without the egg? It's a dietary main but to feed finicky kids, stand in for a quick lunch or snacks, and as an ingredient in all kinds of sweet and sa

But for a few decades there, eggs had a rather unwhol its [high cholesterol](#) content, the egg was deemed villain many of us shunned eggs, ate only the whites, or vent substitutes.

Then, in 2000, the American Heart Association (AHA) and gave healthy adults the green light to enjoy eggs ( guidelines now allow an egg a day for healthy adults w [cholesterol](#) limit of 300 mg.

The confusion over eggs stems from their cholesterol ( contains 213 mg of cholesterol, accounting for two-thir limit.

When scientists learned that high blood cholesterol

But there are just too many articles on a certain topics with contrasting results! So which one to rely on?

## Bad news for egg lovers: Heart disease study spoils our breakfast



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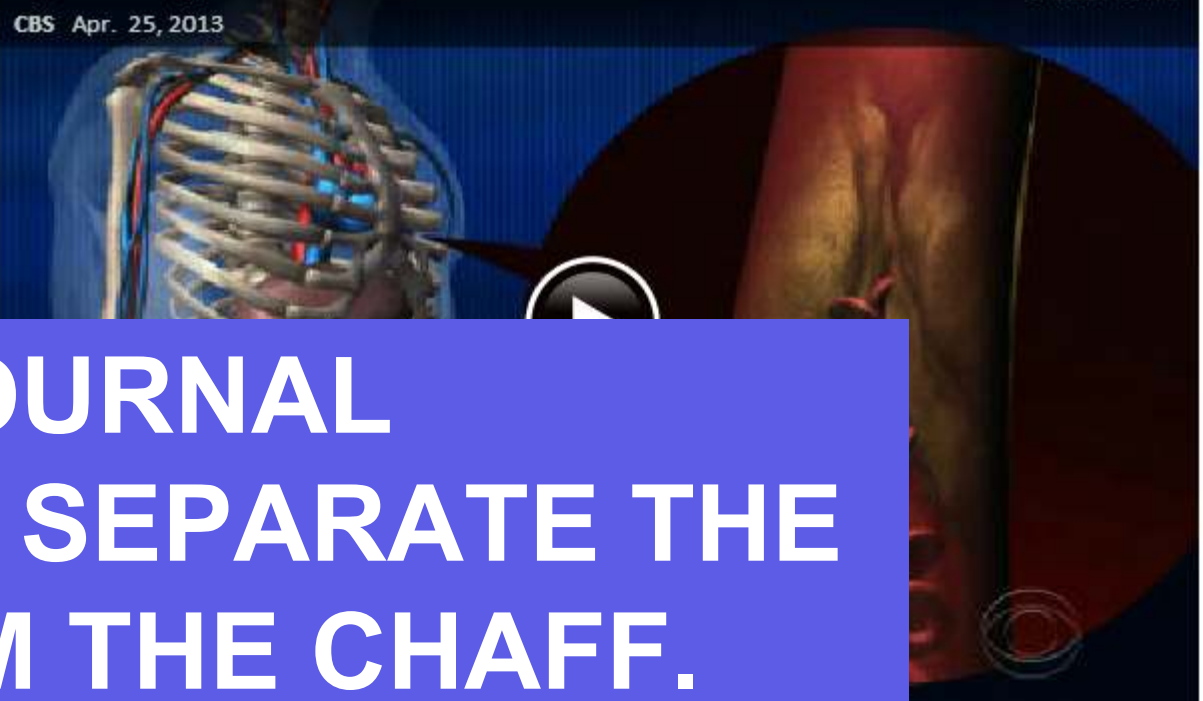
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12

### Digestion of eggs and meat increase risk of heart disease

CBS Apr. 25, 2013

CBSNEWS



SO WE DO JOURNAL  
CRITIQUE TO SEPARATE THE  
WHEAT FROM THE CHAFF.

# What is a journal critique?

A journal critique is an analysis of a research undertaking that focuses on its strengths and limitations.

Critiquing is a systematic process for evaluating research studies and the results reported.

# Purpose of a journal critique

“The purpose of a journal critique is to determine whether the findings are usable for you” (Brink & Wood, 2001, p. 57).

# Why do a journal critique?

- Not all published research is scientifically sound.
- Results may have little support for their validity and may reflect a bias.



# Four Key Aspects of Critique

- Understanding the purpose and problem, while determining if the design and methodology are consistent with the purpose.
- Determining if the methodology is properly applied.
- Assessing if outcomes and conclusions are believable and supported by findings.
- Reflecting on overall quality, strengths, and limitations.

(Holder, 2003)

# Journal critique process

1. Read the research article or report in its entirety to get a sense of the study and its contribution to knowledge development.
2. Read the article or report again, paying attention to the questions appropriate to each stage of the critiquing process.

(Holder, 2003)

# Essential Elements in the journal critique Process

“The necessary elements in a journal critique can be compiled in a series of questions for the process of critiquing research” (Boswell & Cannon, 2009, p. 308).

Examples follow.....

# The PPD Article



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## PATIENTS' SATISFACTION IN ANTENATAL CLINIC HOSPITAL UNIVERSITI KEBANGSAAN MALAYSIA

S. Dyah Pitaloka<sup>1</sup> and A.M. Rizal<sup>1</sup>

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### ABSTRACT

**Background:** A cross sectional study was carried out to identify the level and factors associated with patients' satisfaction in antenatal clinic at Hospital Universiti Kebangsaan Malaysia.

**Methods:** A total of 150 respondents were selected by using convenience sampling method. Data was collected via structured questionnaire with face to face interview. The obtained data was analyzed by using SPSS version 11.5.

**Results:** Majority of the respondents were Malay (72%), while Chinese (18%) and Indian (10%). Age of the respondents around 19 to 40 years old with tertiary education level (50.7%) and most of them are working (76.4%). More than half of the respondents were satisfied with the service that they received (56.7%), while the others (43.3%) not satisfied. Generally, most of the respondents were satisfied with interpersonal aspects from the staff (62%), technical quality of the doctors (79.3%), efficacy (78%), availability (50.7%), and the financial aspect (70%). Meanwhile, the respondents were not satisfied with the several aspects i.e. accessibility (61.3%), convenience (51.3%), and continuity of care (81.3%). In bivariate analysis, the result of this study showed that there were only two factors significantly related with level of satisfaction ( $p < 0.05$ ) i.e. charge of service and number of visit. Further analysis, by using multiple logistic regression showed that health status and number of visit were the predictors of the level of satisfaction.

**Conclusions:** This study showed that most of the respondents were satisfied with the service that they received. However, increase number of doctors, improve interpersonal manner and technical quality of the staff especially nurses and improve facilities of the antenatal clinic should be considered to improve

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# Source

- Source: How legitimate is the source (e.g., empirical study from peer-reviewed journal versus article from popular magazine)?
- This article originally came from Community Health Journal, <http://www.communityhealthjournal.org>, a peer-reviewed journal published by Department of Community Health, PPUKM since 1992. It was discontinued in 2010 due to its' inability to be accepted as an indexed journal.



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# Abstract Questions

- What is the major theme of the research source?  
The theme is Public Health Research
- What is the study about?
  - the level patients' satisfaction
  - factors associated with it in an antenatal clinic.
- The abstract provides a snapshot of the study. From the snapshot, decide how relevant the source is for your purposes, in terms of topic, population, and methodology.

# Abstract as a Snapshot

- Topic - Patients' Satisfaction
- Population – Pregnant mothers in PPUKM's antenatal clinic
- Methodology;
  - Cross-sectional study
  - convenience sampling
  - structured questionnaire with face to face interview.



# Problem Questions

- What is the research problem?
  - Identifying the level of patients' satisfaction and factors affecting it.
- What problem existed (in the setting, in terms of a lack of research, a need for further research, etc.) that the researcher(s) attempted to address?
  - It is important to evaluate the health care system.
  - to improve accountability,
  - to identify, to raise standard and quality of care,
  - to improve responsiveness to patients,
  - to monitor health care seeking behavior,
  - to improve patients compliance with care,
  - to improve outcomes of care.

# Purpose /Objective Questions

- What was the purpose of the study?
  - to determine level of satisfaction and factors influencing satisfaction among patients in antenatal clinic at PPUKM.
  - to better understand the factors that were associated with patients satisfaction,
- Is the purpose clear? Yes
- Was there a clear need for the study?
  - Maybe. It is important to evaluate the health care delivery system on a regular basis.
- Will the study add to the body of literature in the field? Perhaps

# Literature Review Questions

- **Is the review comprehensive? That is, did the researchers include the most relevant literature regarding each of the study's variables and constructs?**
  - **Patients' satisfaction – how to measure was well covered, Qualitative vs Quantitative. Measured using Patient Satisfaction Questionnaire II (PSQ II). Only 2 examples (Iran & Thailand).**
  - **Factors found to affect satisfaction –**
    - Iran - the extent of information exchange (doctor patient communication), unhappy with lack of privacy,
    - Thailand – lack of accessibility and inadequate facilities
  - **Some explanation about how to measure satisfaction. Only 2 articles on factors affecting satisfaction, therefore not comprehensive.**

# Literature Review Questions

- **Are the sources current (within the last 5 years) and/or seminal within the field? (Seminal=strongly influencing later developments.)**
  - 16 references from 1983 to 2004, including seminal references by Ware et al on PSQ2.
- **Are seminal publications reviewed?**
  - The seminal publications set the tone esp. in methodology.
- **Are the majority of sources primary or secondary?**
  - Primary. Mostly original articles.

# More Literature Review Questions

- Do the authors identify a guiding theoretical/conceptual framework, and if so is it clearly explained and linked to the study?
  - Yes. It does explain how satisfaction may lead to better compliance and outcome but it does not explain how the domains being measured will affect satisfaction.
- Is it well organized and does it include an introduction and a summary? - Yes

# Methodology Questions

- **Research Questions:** Did the authors offer any research questions?
- If so, what were they? Are they clearly stated? Do they match the purpose of the study? Are all of the research variables identified?
  - Not explicitly stated
  - “the aim of this study was mainly exploratory in nature; with a view to better understand the factors that were associated with patients satisfaction, using the antenatal clinic as a specific example.”

# Methodology Questions

- **Hypotheses:** Do the researchers offer any hypotheses?
- If so, what were they? Are they clearly stated? Do they match the purpose of the study?
  - Not explicitly stated

# More Methodology Questions

- **Participants:** What was the target population for the study? How were the participants selected? Who is included? Who is excluded? How large is the sample?
  - ANC patients in PPUKM.
  - Convenient sampling, not randomly selected.
  - All pregnant women who have got antenatal care more than once at HUKM were included in this study.
  - Sample size 150. **Wrongly calculated sample size.** If expected prevalence 55%;  
 $(3.84 \times 0.55 \times 0.45) / 0.0025 = 380$ .
  - Therefore inadequate sample size if the expected level of satisfaction is 55%.



Table 1. Estimating a population proportion with specified absolute precision

$$n = z_{1-\alpha/2}^2 P(1-P)/d^2$$

(a) Confidence level 95%

$d \backslash P$	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95
0.01	1825	3457	4898	6147	7203	8067	8740	9220	9508	9604	9508	9220	8740	8067	7203	6147	4898	3457	1825
0.02	456	864	1225	1537	1801	2017	2185	2305	2377	2401	2377	2305	2185	2017	1801	1537	1225	864	456
0.03	203	384	544	683	800	896	971	1024	1056	1067	1056	1024	971	896	800	683	544	384	203
0.04	114	216	306	384	450	504	546	576	594	600	594	576	546	504	450	384	306	216	114
0.05	73	138	196	246	288	323	350	369	380	384	380	369	350	323	288	246	196	138	73
0.06	51	96	136	171	200	224	243	256	264	267	264	256	243	224	200	171	136	96	51
0.07	37	71	100	125	147	165	178	188	194	196	194	188	178	165	147	125	100	71	37
0.08	29	54	77	96	113	128	137	144	149	150	149	144	137	126	113	96	77	54	29
0.09	23	43	60	76	89	100	108	114	117	119	117	114	108	100	89	76	60	43	23
0.10	18	35	49	61	72	81	87	92	95	96	95	92	87	81	72	61	49	35	18
0.11	15	29	40	51	60	67	72	76	79	79	79	76	72	67	60	51	40	29	15
0.12	13	24	34	43	50	56	61	64	66	67	66	64	61	56	50	43	34	24	13
0.13	11	20	29	36	43	48	52	55	56	57	56	55	52	48	43	36	29	20	11
0.14	9	18	25	31	37	41	45	47	49	49	49	47	45	41	37	31	25	18	9
0.15	8	15	22	27	32	36	39	41	42	43	42	41	39	36	32	27	22	15	8
0.20	5	9	12	15	18	20	22	23	24	24	24	23	22	20	18	15	12	9	5
0.25	•	6	8	10	12	13	14	15	15	15	15	15	14	13	12	10	8	6	•

\*Sample size less than 5.

# More Methodology Questions

- **Instruments:** What instruments or tools were used in the study? Who developed the instruments or tools? Validity and reliability?
- **Patient Satisfaction Questionnaire II (PSQ II)**
  - *interpersonal aspects from the staff*
  - *technical quality of the doctors*
  - *efficacy*
  - *Availability*
  - *financial aspect*
  - *Accessibility*
  - *Convenience*
  - *continuity of care*

# Defining and measuring patient satisfaction with medical care

John E. Ware Jr. , Mary K. Snyder, W.Russell Wright, Allyson R. Davies

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[http://dx.doi.org/10.1016/0149-7189\(83\)90005-8](http://dx.doi.org/10.1016/0149-7189(83)90005-8) 

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## Abstract

This paper describes the development of Form II of the Patient Satisfaction Questionnaire (PSQ), a self-administered survey instrument designed for use in general population studies. The PSQ contains 55 Likert-type items that measure attitudes toward the more salient characteristics of doctors and medical care services (technical and interpersonal skills of providers, waiting time for appointments, office waits, emergency care, costs of care, insurance coverage, availability of hospitals, and other resources) and satisfaction with care in general. Scales are balanced to control for acquiescent response set. Scoring rules for 18 multi-item subscales and eight global scales were standardized following replication of item analyses in four field tests. Internal-consistency and test-retest estimates indicate satisfactory reliability for studies involving group comparisons. The PSQ well represents the content of characteristics of providers and services described most often in the literature and in response to openended questions. Empirical tests of validity have also produced generally favorable results.

# Patient Satisfaction Questionnaire II (PSQ II)

- The PSQ contains **55 Likert-type items** that measure attitudes toward the more salient characteristics of doctors and medical care services (technical and interpersonal skills of providers, waiting time for appointments, office waits, emergency care, costs of care, insurance coverage, availability of hospitals, and other resources) and satisfaction with care in general. Scales are balanced to control for acquiescent response set. Scoring rules for 18 multi-item subscales and eight global scales were standardized following replication of item analyses in four field tests.

# PSQ II explanation from the article

- Data was collected by interviewing patients (face to face interview) using Patient Satisfaction Questionnaire II (PSQ II). The questionnaire contains of **41 items** which related to eight dimensions of the patients' satisfaction such as interpersonal aspect, technical quality, accessibility, efficacy, convenience, availability, financial aspect and continuity of care. Likert Scale was used to score the satisfaction questionnaire with four response categories (strongly agree, agree, disagree, and strongly disagree). Scaling decision for the questionnaire is by using cut of point 50% or by using formula:  
$$(Total\ Highest\ Score - Total\ Lowest\ Score) / 2$$
  
*Like this guarantee satisfaction level around 50%??????*

## Wrong formula used

$$(Total\ Highest\ Score - Total\ Lowest\ Score) / 2$$

- If coded as strongly agree (1), agree (2), disagree (3), and strongly disagree (4)
- Therefore if data coded as above, best cut-off point would be 2.5. If 10 questions, then it would be 25, since lowest score would be 10, highest score would be 40.
- If using above formula,  $(40-10)/2 = 15$ . Then the avg cut-off of 1.5 would be between strongly agree and agree. Doesn't make sense.

### Correct formula

*$((Total\ Highest\ Score - Total\ Lowest\ Score) / 2) + Total\ Lowest\ Score$*

- If coded as strongly agree (1), agree (2), disagree (3), and strongly disagree (4)
- If 10 questions, then it would be 25, since lowest score would be 10, highest score would be 40.
- If using formula,  $((40-10)/2) + 10 = 25$ . Then the cut-off would be between agree and disagree. Now it make sense.

## Problems Identified

- The PSQII was modified from 55 items to 41 items, but this was not clearly stated or explained.
- The author calculated the wrong cut-off point for all the domains and the overall score. This will lead to an increase in the number of those not satisfied.



# More Methodology Questions

- **Research Design:** What was the specific research design used?  
Cross-sectional study. Suitable for this scenario.
- How were the data collected?  
Questionnaire-guided face to face interview
- What were the steps in the timeline? Are potential limitations identified and addressed? – Not stated

## **Data Analysis:** Were the data analysis strategies appropriate for the study?

- “Normality tests were done and all of the quantitative data were found to be not normally distributed. Therefore, statistical analysis which used in this study was nonparametric test such as Mann-Whitney U test. For further analysis, multiple logistic regression was done to predict the factors that influence the level of satisfaction.”
- Likert are ordinal data, not continuous.
- Cannot proceed to MV if data not normal. Since logistic regression, better convert the quantitative data to dichotomous.

# Results

- Is each research question or hypothesis addressed?
- Are the findings clearly described?

# Main results – incorrect cut-off?

**Table 3: Level of Satisfaction based on Eight Dimensions**

Level of Satisfaction	Satisfied		Not Satisfied	
	Freq	%	Freq	%
Interpersonal Aspect	93	62	57	38
Technical Quality	119	79.3	31	20.7
Accessibility	58	38.7	92	61.3
Efficacy	117	78	33	22
Convenience	73	48.7	77	51.3
Availability	76	50.7	74	49.3
Financial Aspect	105	70	45	30
Continuity of Care	28	18.7	122	81.3
Overall	85	56.7	65	43.3

# Descriptive

**Table 1: Frequency Distribution of Socio-demographic of the Patients**

<b>Patient Characteristics</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Ethnic</b>		
Malay	108	72
Chinese	27	18
Indian	15	10
<b>Level of Education</b>		
Primary	27	18
Secondary	47	31.3
Tertiary	76	50.7
<b>Occupational</b>		
Government	61	40.7
Private	32	20.3
Housewife	32	20.3
Own Business	20	13.3
Student	5	3.3
<b>Transportation</b>		
No Transportation	8	5.3
Car	100	66.7
Bus	4	2.7
Motorcycle	25	16.7
Taxi	13	8.7
<b>Health Status</b>		
Good	115	76.7
Bad	35	23.3

- Sociodemographic data. Nothing out of the ordinary.
- More tertiary education – maybe because done in HUKM, more UKM staff/students with degrees were being f/up at ANC.

# Descriptive

**Table 2: Characteristics of Patients**

Patient Characteristic	Median	IQR
Age	29	7
Family Income	2000	1500
Distance	8	7
Number of visit	5	4
Waiting Time	150	75
Charge of Service	5	15

- Nothing out of the ordinary except for very long waiting time (2 hours 30 minutes).
- RM5 rate for government referral. RM30 for private referral.

# Patients' Suggestion – not tested statistically to satisfaction

Suggestions	Frequency	Percentage
<b>Suggestion for the Doctors</b>		
Increase the number of the doctors	123	82
More talkative to the patients	79	52.6
Give explanation about anything related to the pregnancy	62	41.33
<b>Suggestion for the Staff</b>		
Smile	111	74
Be friendly	98	65.3
More patience when giving the service	88	58.6
Must be fair when they give the service	67	44.6
Give information related with pregnancy while waiting time	45	30
Don't talk to each other too much and give more attention to the patients	42	20
<b>Suggestion for the Facilities</b>		
Improve the ventilation system	78	52
Use digital system for the waiting time	47	31.3
Increase the number of scan room	28	18.6

# Inferential

**Table 5: Relationship between Level of Satisfaction with Ethnic, Education Level, Occupation, and Health Status**

Patient Characteristics	Total	Level of Satisfaction				p value
		Satisfied		Not Satisfied		
		Freq	%	Freq	%	
<b>Ethnic</b>						
Malay	108	61	56.5	47	43.5	0.545
Non Malay	42	24	57.1	18	42.9	
<b>Level of Education</b>						
Primary Education	27	12	44.4	15	55.6	0.269
Secondary Education	47	30	63.8	17	36.2	
Tertiary Education	76	43	56.6	33	43.3	
<b>Occupation</b>						
Working	113	66	58.4	47	41.6	0.287
Not Working	37	19	51.4	18	48.6	
<b>Health Status</b>						
Good	115	68	59.1	47	40.9	0.182
Bad	35	17	48.6	18	51.4	



## Questions to ask?

- On what basis that the researchers said 85/150 (56.7%) satisfied and 65/150 (43.3%) not satisfied? Overall score?
- If we look at the 8 separate domains, the level of satisfaction ranges from 18.7% to 79.3%. Even if we take an average of the 8 domains, we end up with 62.85%. Which domain have higher weightage?
- As proven earlier, cut-off was wrongly calculated.

# Inferential

**Table 6: Relationship between Level of Satisfaction with Independent Variables**

Variables	Level of satisfaction		Z	p value
	Satisfied Median (IQR)	Not Satisfied Median (IQR)		
Age	29 (7)	29 (6.5)	-0.344	0.731
Family Income	2000 (1500)	2000 (1500)	-0.145	0.885
Number of Visit	5 (3)	4 (4)	-2.213	0.027
Waiting Time	150 (92.50)	150 (95)	-1.142	0.253
Charge of Service	5 (8.75)	15 (23.75)	-2.117	0.034

- No difference in terms of age, income and waiting time. Quite long waiting time, 2 .5 hours!!!!
- Minimal difference in terms of charge. RM5 if referred by government doctors. RM30 if referred by private doctors. Pay more, more unhappy. Yet significant difference.
- Number of visits, more visit more satisfied?

# Logistic Regression

**Table 7: Factors which Predict the Level of Satisfaction**

Variables	$\beta$	S.E.	p value	Odd Ratio
Constant	-3.746	2.496	0.133	0.024
Health Status	0.943	4.418	0.036	2.567
Number of Visit	-0.208	6.401	0.011	0.812

$R^2=0.167$

- R square too low. Constant not significant. Due to wrong coding?. Must use 1 or 0 only. Why have odds ratio for constant?
- Health status not significant. Was it significant earlier? It was not! Why include it into the model? What variables included at the start? What strategy was used? Enter? Forward Stepwise?
- For “Number of visits”, the Beta coefficient was negative, more visit less satisfied? Reversed result? How was the satisfied and not satisfied coded? Satisfied 0 Dissatisfied 1? Since the data was not normally distributed, better to recode it into dichotomous.

## Discussion

How do this study's results fit into the broader literature? - No because the level of satisfaction too low. Maybe due to wrong cut-off point for domains and overall.

- Others wait only 35 minutes, ours wait 150 minutes!
- What were the limitations of the study? ??
- Are recommendations made for practical application? – Yes, next slide.
- Are recommendations made for further research? - No

# Recommendations

- Increase the numbers of doctors,
- improve the interpersonal manner of the staff and
- improve the facility of the clinic
- How come they missed the waiting time?
- Recommendation not based on analysis
- If based on analysis, should lower charges or increase number of visits :p

# Conclusion

- Reject findings because
  - it was based on the wrong cut-off point, for the domains and overall
  - inadequate sample size and
  - modified PSQ II but not declared
  - Logistic regression was probably wrongly coded. Strategy used not stated.
  - The original peer-reviewer missed all this. How embarrassing!

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