Author's response to reviews

Title: Gender-based differences in the high-risk sexual behaviours of young people aged 15-29 in Melilla (Spain): a cross-sectional study

Authors:

Esperanza Romero-Estudillo (mariaesperanzaromero@ugr.es)
Emilio González-Jiménez (emigoji@ugr.es)
María C. Mesa-Franco (mcmesa@ugr.es)
Inmaculada García-García (igarcia@ugr.es)

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Author's response to reviews: see over
We would like to thank the reviewer for his/her helpful comments and suggestions, which have greatly improved the quality of the manuscript.

**Reviewer’s comments:**
A very interesting piece of research and very timely given the importance of sexual health. There are several issues which I feel need to be addressed; some relating only to the wording used; others relating to the wording used in relation to the statistical techniques used (factors/determining) and some relating to the relevant contribution of the research in relation to the current knowledge and the discussion surrounding the use of the findings in intervention studies and as a foundation for future research.

**Abstract:**

*Discretionary revisions*

*Minor essential revisions*

1) Use of the word ‘verify’ (line 44), perhaps consider alternative wording e.g., provide evidence for, as opposed to actually verifying an association.

The manuscript has been changed as suggested by the reviewer.

2) Transversal study was performed (line 47), perhaps consider alternatively wording. Transversal study relates more to the study design, which was not necessarily performed.

As recommended, “transversal study” has been replaced by “cross-sectional study”.

3) Line 48, can you provide more information on the centres. City centres or university centres, etc?

The article now includes more information about the academic institutions and military base where the participants studied and worked.

4) Line 50, define ‘minor subjects’ for the purpose of the study

“Minor subjects” has been modified to “participants under the age of 18”.

5) Line 51, more information about what makes the questionnaire psychological. Alternatively consider removing the word psychological.

As suggested by the reviewer, “psychological” has been eliminated.
6) Line 52, remove ‘the’ before Chi Square and Mann Whitney U tests.

The text has been changed in accordance with the reviewer’s recommendation.

7) Line 54, alternative word instead of ‘confirmed,’ perhaps identify or found.

“Confirmed” has now been replaced by “found”.

8) Overall comment on the use of p values in the abstract: could you clarify the use of p= rather than p<0.05, p<0.01 or p<0.001.

The p value has been clarified by saying that “p < 0.05 was considered significant”.

9) Overall comment on the use of p values in abstract: query to the use of p=0.000.

The value p = 0.000 has been changed to p = 0.001.

10) Line 56, insert ‘significant’ between ‘no differences.’

The reviewer’s suggestion has been incorporated into the text.

11) Query sentence starting Line 58. Perhaps needs rewording or clarification, e.g. ‘the reasons’ ‘significant differences’.

The sentence has been modified.

12) Line 62, statistically significant, consider rephrasing as significantly different.

The text has been changed as suggested by the reviewer.

13) Consider alternative wording for ‘there were none’ (line 64).

The sentence has been modified.

14) Overall comment relating to result section of the abstract. Could the results be rewritten to convey where the differences lie (e.g., the items where males > females and vice versa). This may provider the reader with more detail about the findings.

More gender-specific information has been added to the paper.

15) Line 72 ‘them’ changed to ‘these practices’

The text has been changed as suggested by the reviewer.

16) The last section of the abstract does not really tell the reader anything substantive about the findings and how they can be used. Perhaps this can be amended and may flow following suggestions from comment 14.
The last section of the abstract has been modified.

17) Overall, more details required about the nature of the sample, e.g. age. Overall: I would consider the use of the word cross-sectional in favour of transversal.

The text now includes the mean age and standard deviation of the age of the participants (20.93 ± 4.071). “Transversal” has been replaced by “cross-sectional”.

**Major compulsory revisions**

1) Define ‘high-risk sexual behaviour’ for the purpose of the study.

“High-risk sexual behaviour” has been further specified as “non-use of condoms and casual partners”.

2) In the abstract, use of the word ‘factors’ implies causal inference. Are these factors, or items? Or perhaps statements?

In accordance with the reviewer’s suggestion, “factors” has been replaced by “items”.

**Background:**

**Discretionary revisions**

**Minor essential revisions**

1) Line 89, query the use of the word ‘confirm,’ consider alternative such as suggests or highlights.

2) “Confirm” has been replaced by “suggest”.

2) Consider removing or provide more information to expand on ‘live their sexuality quite differently,’ line 89.

As recommended, the phrase “live their sexuality quite differently” has been changed “express their sexuality differently”.

3) Provide more detail, line 92, ‘generally take more risks than young women’. What type of risks?

The text now includes the following expression: “They also have a higher number of casual partners than young women”.

4) Line 95, remove ‘also.’

The term “also” has been eliminated from the text.
5) Line 96, provide more detail about the risks associated with oral contraceptives.

In accordance with the reviewer’s suggestion, more detail has now been provided about the risks: “(mainly, venous thromboembolic disease)”.

6) Line 97, remove ‘the’ before young women and line 98 remove ‘the’ before young men and the ‘the’ before males.

The text has been changed as suggested by the reviewer.

7) Line 99 ‘these authors’ could be altered to include the names of the authors ‘Hooke et al’

“These authors” has been changed to “Hooke et al. [7] “

8) Rephrase ‘pointed out,’ e.g. identified

“Pointed out” has now been changed to “Identified”.

9) Clarification of the sentence starting line 99 beginning with ‘these authors’, removing the word since in favour of explanations for this difference related to’.

Following the reviewer’s recommendations, the sentence has now been rewritten.

10) Line 101, replace ‘other factors with a close relation’ with ‘other factors closely related.’ (also see comment about the use of the word ‘factors’).

The expression “other factors with a close relation” has been modified as suggested by the reviewer. “Factors” has also been replaced by “items”.

11) Line 101, define high-risk sexual practices in this context.

As a definition of “high-risk sexual practices”, the text now includes “(non-use of condoms and casual partners)”.

12) Line 105, change ‘in regards’ to ‘with regard’ to protection.

The text has been changed as suggested.

13) Lines 106-109 could be rephrased to be less definitive e.g., changing the use of the word ‘indicates.’ One element of non-condom use in favour of oral contraceptive may relate to less concern towards avoiding pregnancy – however other explanations may relate to the stability and duration of the relationship –literature in relation to this could be considered.

This section of the text has been changed as follows:
With regard to protection (STIs and pregnancy), Planes et al. [13] reported that the increased use of oral contraceptives has led to a corresponding decrease in the use of condoms. This suggests that young people, in particular, women, are more worried about avoiding pregnancy than about becoming infected with the human immunodeficiency virus (HIV) or contracting a sexually transmitted infection (STI). This indicates that young people believe that the main problem related to their sexuality is risk of pregnancy. Another explanation for the non-use of condoms could be a stable relationship.

14) Line 109 – ‘sexually transmitted disease’ replace with Sexually Transmitted Infection (STI).

The text has been changed as suggested.

15) Line 111, ‘fear of being rejected by ones partner’ – can you expand on this, e.g. due to embarrassment, implying lack of trust?

The text has been modified as follows:

One of the main reasons given by the participants for not using condoms included the lessening of sensitivity and sexual pleasure as well as the fear of being rejected by one’s partner due to embarrassment, implying lack of trust [14].

16) Are these ‘reasons for not using condoms’ (lines 111-112) gender specific or reported by both males or females? This could be made more clear, especially given in relates to the later findings (discussion).

This information has now been included in the Discussion section.

17) The use of the word factors (line 116) implies a cause and effect relationship.

“Factors” has been eliminated and more information has been included to specify this context.

18) Line 118 rephrase ‘verify’ with a less definitive word, e.g. explore, identify

“Verify” has been replaced by “identify”.

19) Line 119, ‘the variable’ can be deleted.

As suggested, “the variable” has been deleted.

20) Line 122, again factors implying cause and effect.

“Factors” has been changed to “aspects”.

Overall comments:

Define what is mean by high-risk sexual behaviour and practices.
The concept of “high-risk sexual behaviour and practices” has been further explained as follows:

In contrast, females usually have sexual relations within the context of a stable committed relationship, which is associated with love and trust [3]. They seem to feel a greater need of a stable partner to have sexual relations and tend to place a greater value on his/her faithfulness [4]. Women also tend to value affection and social position, whereas for men physical attractiveness is important [4]. In the same line, Larrañaga et al. [5] found that Spanish university students have gender-based sexual attitudes with the rejection of contraceptive methods, particularly condoms. An increase in macho attitudes as well as romantic ones in young people appears to contribute to the rejection of preventive measures in sexual relations.

Consider the use of the word ‘factor’ as implying a cause and effect relationships.

“Factor” has been eliminated from the text.

Consider including more reference and detail to using a specifically adolescent sample.

As indicated by the reviewer, more specific information regarding studies carried out with adolescent population samples and in geographic contexts near Melilla has been added. The text now reads as follows:

According to García-Carpintero et al. [9], barrier contraceptives (e.g. condoms) are more frequently used by males and adolescents, mainly at the beginning of sexual relations with a casual partner. Moreover, the fact that the condoms are considered to be a male contraceptives signifies that men tend to use them more than women.

The study conducted by Rodríguez Carrión et al. [10] on sexual behaviours in a sample of 2,225 adolescents found that the condom was the most frequently used contraceptive followed by birth control pills. Of the sexually active participants, 2% used no contraceptive method at all; 4% used the withdrawal method; and 16.6% admitted to having used the morning-after pill.

Provide more rational / theoretical basis for using a sample from Spain.

The text now includes more information regarding the importance of performing this study with a Spanish population sample. It reads as follows:

In recent years, the prevalence of STIs in adolescents living in the city of Melilla, Spanish exclave on the coast of North Africa, has soared. According to data published in the first semester of 2012 by the National Institute of Statistics (Spain) [20], there are 90 diagnosed cases of HIV, due to injection drug use (62.2%), heterosexual contact (17.7%), and homosexual contact involving men having sex with men (MSM) (10.2%). Other transmission categories are blood transfusion (2.2%) and mother-to-child vertical transmission (2.2%). Of the patients diagnosed, 78.8% are males and 21.1% are females.

Furthermore, according to the Ministry of Health and Social Policy in Spain [21], in 2012 there were 109 voluntary interruptions of pregnancy (VIPs) in Melilla. Ten of these cases were females 15-19 years of age; 36 cases were females 20-24 years of age; 31 were females 25-29 years of age; and 32 were females 30-44 years of age. Most of the women were single, and 30.27% had had at least one previous VIP. Interestingly, in the city of Ceuta, whose geographic location and socio-demographic and cultural characteristics are
very similar to those of Melilla, there were 38 cases of VIPs during the same time period
(Ministry of Health and Social Policy, 2013).

Furthermore, the sentence “The steadily increasing prevalence of STDs underlines the
need to discover and analyse the factors involved in the adoption of high-risk sexual
practices, based on gender [13]” has been modified as follows:

The steadily increasing prevalence of STIs in people of younger ages underlines the need
to examine the aspects involved in the adoption of high-risk sexual practices, based on
gender [22].

In relation to ‘risk-behaviour’ and ‘casual sex,’ more definition is required to describe
the context of these in relation to the study.

The introduction has been modified so as to include information that better defines and
specifies, “risk behaviour”. In regards to “casual sex”, the term is now specified as
follows:

This type of sexual relation occurs between people who are strangers or who have a very
slight acquaintance with each other [8].

**Major compulsory revisions**

1) Line 110 – this is the first reference to adolescents – if the study is focussing
specifically on this group earlier reference is required (including within the abstract).

In the introduction, more references have been added about studies carried out with
adolescents in order to better contextualize this study.

2) I would query if it is possible to ascertain a cause and effect relationship in relation
to the rise in STI (STD) rates. This is only one possible explanation, or a contribution to
the rise are there other explanations, perhaps figures relating to transmission via
oral/anal sex for example?

As the reviewer observes, there can be other factors involved such as anal or oral sex.
This is now explicitly stated in the text.

3) In the background, the rationale for looking at gender differences in sexual health is
made clear, however the theoretical/contextual premise and justification for using a
sample is Spain is not outlined clearly enough. Although I believe the focus on a
Spanish sample to be interesting, I believe the authors need to include some further
work to clarify their purpose in the analysis, their conceptual and theoretical model,
and playing up why they think their findings are novel and important to the field. Are
there specific reasons for using a Spanish sample, for example, based on STI rates or
rates of pregnancy in adolescents?
The introduction now includes information that justifies the importance of conducting studies such as ours. The high prevalence of STIs in the city of Melilla justifies the need to investigate the high-risk sexual practices and behaviour of its population.

4) Is there also further rationale for only focussing on penetrative vaginal sex, as opposed to other sexual encounters. Also, were questions in relation to same sex sexual encounters. Perhaps this could be clarified in relation to what is meant by ‘risky sexual behaviour’

In this study, the main focus was on sexual practices with penetration, condom use, and the number of partners. It was not our objective to study other types of sexual practices though we would like to thank the reviewer for the helpful comment.

**Method:**

*Discretionary revisions*

*Minor essential revisions*

1) Line 127, only UNED required in brackets.

The text has now been changed accordingly.

2) Is the use of the word foreigners appropriate? Perhaps there is a better suited word “Foreigners” has now been changed to “outsiders”.

3) Line 135 delete ‘quite’

The term “quite” has been eliminated from the text.

4) Consider the relevance of including the minority population groups and also how the groups are referred to in the text.

Minority population groups were not considered relevant in this study because of their reduced number.

5) The composition of the inhabitants of Melilla is considered, however this is not referred to within the sampling frame. Is this information necessary, if so, more detail needs to be added about this relates to the sample of the study (e.g. was it considered as part of the sampling technique)

The text now includes a description of the population of Melilla (Spain) so that the reader can have a better vision of the population of the city.

6) Change ‘our study’ to ‘the study’ line 142.
The text has been changed accordingly.

7) More information about the characteristics of the sample (e.g., mean age) line 144.

Information about the mean age of participants has now been added to the text.

8) Line 145 states that subjects had previously agreed to answer 80% of the questions on the survey – can you provide more information on how was this determined?

In order to participate in the study, participants had to respond to the question about condom use, casual partners, the reasons for having casual partners as well as the reasons for using or not using condoms with casual partners. However, if participants did not respond to the questions about their age, marital status or education level, this was not a motive for exclusion.

9) Line 149 – can you provide more information, e.g. on how many places were approached or invited to participate, how many declined.

In this study, all of the places that we approached agreed to participate. There were none that declined.

10) Line 152, what are the age of minor students in this context?

In Spain, everyone under 18 is regarded as a minor.

11) Lines 153-156 could be tightened up to remove extraneous words

The text has been rewritten.

12) Line 158 replace ‘whereas’ with ‘and’

The text has been modified.

13) As in the earlier text, can you define ‘risky sexual behaviour’ in this context line 163.

The text has been modified to make the term more precise.

14) Line 163 reads ‘variables with an impact on sexual behaviour’. Can a causal relationship be inferred in this context? Also, is the impact being discussed coming from the past literature or is this the hypothesis that is being explored? Could this be clarified?

The sentence has been softened. However, as stated, these variables are the ones in the questionnaire and are discussed throughout the text.

15) Line 165 replace ‘this’ with ‘the’
The text has been changed.

16) In lines 166-168, perhaps consider the use of single and multiple response options in favour of ‘the subject could only give one/(3/4 four) response(s)’

To facilitate comprehension, the methodology section now includes the following clarification:

The questionnaire contained 11 demographic items and 28 risk-behaviour items to which the participant could only give one response in the different categories, depending on the item.

17) Lines 171-172 could be separated into two sentences to consider the qualitative and quantitative data separately. However, there is no mention of qualitative data earlier in the text. Does this relate to open ended questions on the questionnaire or questions with 3 or 4 response options? Can this be added / clarified?

There were no open questions since all were closed categories. The term “qualitative variable” has now been changed to “category variable”.

18) Can you provide more information about the ‘typical deviation’

It was relevant to include the standard deviation in the statistical analysis since it offers a vision of data dispersion in the sample.

19) Line 173 change ‘of’ to ‘on’ and remove ‘the’ before Chi-Square.

The text has been modified as requested.

20) In relation to the ethics information, can you provide more information about the consent procedure for minors, e.g. parental consent.

As suggested by the reviewer, the following information has been included and the text has been modified as follows:

The participants (15-17 years of age) had the written authorization of their parents or tutors to participate in the study whereas participants that were 18 or older personally gave their written informed consent.

Major compulsory revisions

1) Consider the use of the word ‘subjects’ line 156/line 166/ line 168 (and throughout the paper), perhaps change to participants.

As suggested, “subjects” has been changed to “participants” in lines 156, 166 and 168 as well as throughout the paper.
2) It would be extremely beneficial for the reader to have more information on the measures used, for example, some examples of the questions included in the questionnaire, perhaps one of two of the 28 risk-behaviour items and the 76 contextual variables. This may also include the response options available to participants. This would provide some further context for later issues which arise relating to ‘fairly determining/highly determining’ and the context in which they are placed.

As suggested by the reviewer, the methodology section now includes an example of an item with the four possible response options.

Results

Discretionary revisions

Minor essential revisions

1) Line 184, can you clarify ‘depending on gender’ (table 1) is this ‘overall’

In Table 1 “depending on gender” has now been modified to “according to gender”.

2) Line 185, consider the use of sexual relations, perhaps replace with sexual intercourse.

The text has been modified.

3) Line 187, replace ‘for’ with ‘between’ the two sexes

The text has been modified.

4) Line 188, ‘no significant gender differences’

The text has been modified.

5) Line 188 remove ‘since’ and begin a new sentence, again just a less definitive alternative wording

“Since” has been eliminated and the rest of the text has been changed accordingly.

6) Line 189, rather than ‘use one’ consider ‘reported condom use’

The text has been modified.

7) Line 189 insert ‘there’ between ‘were’ and ‘any’ and also insert ‘gender’ between ‘significant’ and ‘differences.’
8) Remove 'because' to make a new sentence, again this is just less definitive alternative wording.

9) Line 193, significant differences ‘between’ rather than ‘for’ both sexes.

10) Line 193-194, rephrase ‘female subjective stated that they had had only one partner’ with ‘female participants reported intercourse with only one partner’

11) Line 195, insert ‘gender between ‘significant’ and ‘differences.’

12) Line 196-197, rephrase ‘women had had’ with ‘women had engaged’ or ‘women reported engaging’

13) Line 198, re-order ‘gender-based significant differences’ in favour of ‘significant gender based differences.’

14) Remove ‘since’ line 198 and start new sentence.

15) Line 204 insert ‘gender’ between ‘significant’ and ‘differences’

16) Line 204, accordingly does not fit in the context of this sentence. Further detail is required relating to the ‘factor as fairly determining.’

17) Line 206, replace ‘for’ with ‘between’
18) Line 209-209, further detail about the variable being ‘slightly determining.’ Does this relate to the response options, if so, more detail needs to be described in the outline of the measures in the methods section.

To clarify the text and given that “slightly determining” is one of the response options, the other options have been specified in the methodology section.

19) Line 211, more detail required about a factor being ‘highly determining’.

See our response to the previous comment.

20) Line 212, reorder words to ‘significant gender-based differences’

The text has been modified.

21) Line 213-2014, more detail about highlight determining – how does this relate to physical excitement.

As requested by the reviewer, more detail has been provided.

22) Delete ‘in fact, only’ (Line 218)

The text has been modified.


The text has been modified.

24) Further clarification of the use of the word ‘factor’ and ‘determining’

“Determining” is related to the response options, which have been detailed in the methodology section. “Factor” has been replaced with “item”.

25) Line 226 remove ‘between the two sexes’ and insert ‘gender’ between ‘significant’ and ‘differences’

The text has been changed accordingly.

26) As mentioned, the use of the word ‘determined’ in line 223 implies a causal relationship which has not been tested in this type of analysis. This is also applicable to line 225.

“Determining” is related to the response options, which have been detailed in the methodology section. “Factor” has been replaced with “item”.

27) Line 227, separate out the sentence by deleting ‘since’
The text has been changed accordingly.

28) Line 231, more context required to explain the use of the word ‘determining’. This is also the case for line 232, line 233, line 241, line 243 and line 244.

“Determining” is related to the response options, which have been detailed in the methodology section. “Factor” has been replaced with “item”.

29) Line 247, this is the first time ‘reason’ has been used, it provides a much clearer context to the use of the word ‘determining’

In accordance with the reviewer’s observation, “reason” has been included in different places in text to facilitate comprehension.

30) Line 249, change ‘gender-based significant differences’ to ‘significant gender-based differences’

The text has been modified.

31) More context required for ‘women regarded this reason as highly determining’ and for ‘highly determining or not determining’ (lines 250-252).

“Determining” is related to the response options, which have been detailed in the methodology section.

Overall comment on the use of p values: could you clarify the use of p= rather than p<0.05, p<0.01 or p<0.001. Also a query on the use of p=0.000.

In each table, p<0.05 has been eliminated.

Consider the use of ‘in regards’ and ‘in this regard,’ perhaps consider the use of ‘with regard’ as an alternative. Sexual relations, if relating to sexual intercourse may be better defined explicitly as sexual intercourse. I felt as though the results were a little list-like, would there be a better way to group the findings differently, or outline more specifically those relating to intercourse, those relating to casual sexual intercourse or those relating to condom use.

“In regards” has been changed to “with regards”.

Major compulsory revisions

1) Overall (e.g. Line 215), the use of the word factor implies a cause and effect relationship which cannot be inferred from the type of analysis used, e.g. given that only differences/relationships are being explored in the study. Can you select alternative wording to refer to the variables, e.g., items, variables/statements?
“Factor” has been changed to “item” or “variable” in the text of the results.

Also, further clarification is required as to what is meant by ‘slightly/highly determining’ in this context. This may benefit from some more explanation in the methods section relating to how the statements were measured.

The meaning of the expressions “slightly/highly/Fairly determining” has now been clarified.

Discussion

Discretionary revisions

Minor essential revisions

1) Line 257, replace ‘similar to those of most of the studies consulted’ with ‘similar to findings of previous research (reference)’

The text has been modified.

2) Select alternative word for ‘confirmed,’ perhaps ‘identified’.

The text has been modified.

3) Delete ‘accordingly’ line 259 and replace ‘subjects said that they had had sexual relations’ with ‘participants reported sexual intercourse’

The text has been modified.

4) Replace ‘followed by’ with ‘and reported’ line 260.

The text has been modified.

5) Select alternative word for ‘coincides.’

The text has been modified.

6) More detail required about line 262-263. This required further clarification relating to which findings are the current research and which are those of previous literature, at present it is not clear.

The text now includes the contributions of Bemudez et al. and López et al.

7) Select alternative word for ‘affirmed’ (line 265) and more detail required relating to the comparison group for the statement ‘considerably higher’
The text has been modified.
8) Select alternative word for ‘in consonance’ (line 265)

The text has been modified.
9) More information is required about what is meant by ‘social motivation’ (line 273)

The text has been modified.
10) Sentence could be shortened in Line 272-275.

The text has been modified.
11) Select alternative word for ‘coincide’ (line 275)

The text has been modified.
12) Select alternative word for ‘showed,’ e.g. found or identified (line 278)

The text has been modified.
13) Replace ‘that’ with ‘who’

The text has been modified.
14) Provide more information about the reasons given for not using protection. Also, give more details on ‘protection,’ birth control pills or condoms. Does this statement refer to unprotected sexual intercourse?

More information about how gender can influence the use or non-use of condoms has now been added to the text. The following sentence has also been included: “The non-use of condoms may or may not vary, according to gender as found in previous research [46,47].”

15) Line 282 provide more detail about other countries (e.g. names). Are these culturally comparable to Spain?

The names of the other countries have been included in the text.
16) More clarity required on the sentence starting 283-286.

The sentence has been rewritten.
17) The sentence beginning line 286 begins ‘it should be asked’ but there is no contextual information provided about who should ask, is this posing a research question or relating to the young people’s sexual encounters? More information is required to clarify this point.
The sentence has been modified.

18) Select alternative word for ‘coincide,’ e.g. support

The text has been changed accordingly.

19) Sentences 292-296 could be shortened and made more clear.

The text has been rewritten and shortened.

20) More clarify required about ‘highly determining’ (line 299)

“Determining” is related to the response options specified in the methodology section. The term is now clearly defined in the text.

21) Select alternative word for ‘coincide’ (line 300)

The text has been modified.

22) Lines 297-299 refer to the non-use of condoms, it would be beneficial to discuss the gender differences in relation to these findings here and draw upon the possible gender differences in the explanations for non-use.

As suggested by the reviewer, more information has been included.

23) Expand on lines 301-302 and provide more detailed explanations for the finding relating to females having little possibility of adopting protective measures with casual partners – does this refer to the non-use of condoms? Are there more information or explanations for males’ non-use of condoms, given that a higher proportion reported that they ‘do not like to use a condom and a condom lessens sensitivity and reduces pleasure’

The text and the bibliographic reference have been modified.

Major compulsory revisions

1) Line 270 refers to predictive factors however the statistical tests used only determine relationships/differences.

In accordance with the reviewer’s suggestions, the term “predictive” has been eliminated.

Limitations:
Discretionary revisions

Minor essential revisions

Major compulsory revisions

1) At present there is only a very basic consideration of the limitations of the study, further limitations of the study should be considered, e.g., sample, measures used, limitations of self-report particularly surrounding a sensitive topic. Though there is some mention of multicultural identify, this is not referenced and not explored in enough detail to provide the reader with how cultural differences may relate to sexual practices.

The section on the limitations of the study has now been expanded and improved.

Conclusions

Discretionary revisions

Minor essential revisions

Major compulsory revisions

1) More information could be provided about how the research has made a novel contribution to the current knowledge surrounding adolescent sexual health practices and adolescents’ reasons for engaging in risky sexual behaviour.

In response to the reviewer’s comments, the following information has now been included in the text:

Constituting the motives for having sexual relations with casual partners, male participants considered opportunity and interest in knowing the other person to be more determining than the female participants.

2) More information could be provided about how the results could be used in the design and implementation of interventions. Based on the information identified in the research, what would these interventions look like and how would they be employed, given the gender differences and similarities which have been identified.

In response to the reviewer’s comments, the following information has now been included in the text:

Accordingly, health promotion programs in education centres should recommend and reinforce condom use in sexual contacts.

3) Though I found the study and its findings very interesting, at present I felt the discussion and conclusion lacked contextual basis, for example, more information would be beneficial relating to how the findings relate to a Spanish or even an international setting.
In response to the reviewer’s comments, the following information has now been included in the text:

There are similarities between the results obtained in this study and those of other studies on sexual partners and gender. However, concerning motives for engaging in sexual relations, the results of previous research are far from uniform.

4) More information is required relating to further areas for study and stages of later research based on the current findings.

In response to the reviewer’s comments, the following information has now been included in the text:

In future research, it will be necessary to evaluate the impact of educational programs on young people and their sexual behaviour.
COMMENTS TO REVIEWER 2

We would like to thank the reviewer for his/her helpful comments and suggestions, which have greatly improved the quality of the manuscript.

Reviewer’s report:
This was an interesting article and I enjoyed reading it. However, I think that the authors need to address a number of issues before it would be suitable for publication.

- Major Compulsory Revisions

1. It is not clear what research gap the study fills. In the background and discussion sections the authors highlight other research with similar aims/findings. I would suggest that at the end of the ‘background’ section the authors clearly indicate what gap the research aimed to fill (i.e. clearly define the research question) and in the ‘discussion’ section clearly indicate what the study adds to the literature.

As suggested by the reviewer, we have included more information in the introduction about the aims of the study. The discussion has also been expanded to include a more detailed explaining of the main findings in relation to those of previous research.

2. I am concerned about use of the term ‘verify’ in objective 1. This word suggests that the study will ‘prove’ something yet it is a correlational study so can only present associations between variables. The word/phrase should be changed to better highlight what the study can achieve.

The first objective has now been reformulated in consonance with the reviewer’s recommendation.

3. The discussion and conclusion sections need further work. At present the discussion summarises the results and highlights similar findings from previous studies. This needs to be balanced with an interpretation of the findings (including examination of why some of the findings differ from previous research) and a clear discussion of their implications. The authors should also indicate directions for further research.

As suggested, we have expanded the discussion section to include the findings of previous studies. The information or guidelines for future research can be found in the conclusions.

4. The limitations of the study need to make clear that this was a cross-sectional correlational study i.e. caution should be applied when interpreting the results as they represent correlations/associations between variables and do not infer causality. Do the authors also need to note here that they did not achieve their estimated required sample size?
The section on the limitations of the study has been rewritten and expanded, according to the indications of the reviewer.

5. I also wondered about the use of the term ‘young people’ in the title when the sample consists of individuals aged 15-29. Having read the title I assumed the study was about adolescents. Consider changing this term or adding ‘young people aged 15-29’

The title has been modified.

6. The authors do not report the distribution of the sample in relation to age e.g. how many where in the younger/older age groups. Neither do they indicate whether they did any analysis by age. I would expect that there are differences in findings among 15 year-olds and 29 year olds and would like to see an indication of differences (or if reported elsewhere a summary of this and indication of publication elsewhere).

We would like to thank the reviewer for his/her observation regarding the age variable. However, this study focuses on gender. If we had targeted age as well, this would have made the study considerably longer.

- Minor Essential Revisions

7. Throughout document: should the word ‘systematic’ in the term ‘systematic condom use’ be replaced with ‘consistent’? If not, please define systematic

The term “systematic” has been replaced by “consistent”.

8. Consider changing the term ‘transversal’ in the title and elsewhere to ‘cross-sectional’. I think it might be more commonly understood but perhaps just my own preference.

The term has now been changed to “cross-sectional study”.

9. The authors mix use the terms ‘subject/subjects’ and ‘participant/participants’ throughout the document. Apologies if I’m being pedantic but I prefer the term participant as it suggests doing research ‘with’ rather than ‘on’ the individuals taking part.

“Subject/subjects” has now been changed to “participant/participants”.

10. The term STD (sexually transmitted diseases) should be replaced with STI (sexually transmitted infections) throughout the document.

The text has been changed as indicated by the reviewer.
11. Background/para 3/line 1: ‘In regards to protection’- protection against what? STIs, pregnancy, both?

The term “protection” refers to protection against STIs and pregnancies.

12. Methods/para 2: I’m not sure that all the demographic detail on the population of Melilla is needed. The authors do not refer to it as part of their analysis.

The text has now been simplified and reads as follow:

In order to calculate optimal sample size, we consulted the ongoing census of the National Institute of Statistics (Spain), for 1 January 2013 [23]. According to the census data, Melilla has 17,998 residents that are 15-29 years of age [24]. Assuming an error of 3%, it was estimated that our study required a sample population of approximately 1000 participants of 15-29 years of age. The sample was finally composed of 900 participants: 524 males (58.2%) and 376 females (41.8%).

13. Methods/para 3: Why did the authors choose the 15-29 age range?

The five-year groups of the National Institute of Statistics were taken as a reference for two reasons. On the one hand, this was in consonance with the WHO guidelines that differentiate between adolescents and young people, based on age (i.e. adolescence lasts until the age of 19 and youth, until the age of 24). On the other hand, in today’s world, young people do not become economically independent until they are much older than the WHO age limit for adulthood. Furthermore, young Spaniards are unable to leave home earlier because of the length of their studies as well as because of high rents and housing costs, though in some cases, the decision to remain with their parents is for the sake of personal comfort and convenience. On average, women in Spain tend to become economically independent at around the age of 28, and men, at the age of 30. This sociological problem has even led to the coinage of the term *adultescent*, defined by the Random House Dictionary as a “young adult or middle-aged person who has interests, traits, etc. that are usually associated with teenagers”.

How was the sample distributed according to this relatively broad range? Also, it would be interesting to know if the participants were students/employed etc.

The following paragraph has been included at the beginning of the results section:

The sample had a mean age of 20.93 years (SD 4.71), and was distributed in the following intervals: 364 (40.4%) of the participants were 15-19 years old; 345 (38.3%) were 20-24 years old; and 191 (21.2 %) were 25-29 years old. Of these participants, 664 (73.9%) were students; 137 (15.2%) were in the armed forces; 33 (3.7%) had other jobs; and 65 (7.2%) were unemployed.

14. Methods/para 3/line 7: ‘All participants were aged 15-29 years of age and had previously agreed to answer 80% of the questions in the survey’. This seems strange. Why only 80%?
In order to participate in the study, participants had to respond to the question about condom use, casual partners, the reasons for having casual partners as well as the reasons for using or not using condoms with casual partners. However, if participants did not respond to the questions about their age, marital status or education level, this was not a motive for exclusion.

15. Methods: Provide information on the parametric properties of the scale (reliability and validity).

Since aggregation scores were not calculated, the parametric properties are not shown.

Also, what where the response categories (e.g. agree, strongly agree etc)? Where they the same for all items?

The response categories are described in the following text:

For example, for physical attraction as a motive for having sexual relations with casual partners, participants could enter one of the following response options: Highly determining, Fairly determining, Slightly determining and Not determining. Here, determining was defined as something (in this case, sexual attraction) that contributes to producing a result or behaviour (sexual relations). The modifiers highly, fairly, slightly, and not determining designate a four-point scale.


The term has been changed to “category variable”

17. The Results section begins ‘Regarding high-risk sexual practice’ and then talks about experience of penetrative sex among participants. Do the authors consider sexual intercourse to be ‘high-risk’ behaviour (even for 29 year olds?) Please clarify.

As suggested by the reviewer, “high-risk” has been eliminated. Furthermore, the section now begins with a brief description of the sample.

18. Throughout the results the authors use the term ‘determining’ (fairly determining, highly determining etc). This needs to be defined as it is not always clear what it means (e.g. determining of motives/behaviour) or what the range of possible ‘determining’ responses are. (Minor issues not for publication).

The meaning of “determining” has now been defined in the methodology section.

19. Abstract/Methods: add ‘four’ to ‘different centres’

The text has been modified as suggested by the reviewer.

20. Abstract/Methods: define ‘minor’ under 18?
“Minor” has now been changed to “under the age of 18”.

21. Abstract/Methods: consider substituting term ‘psychological questionnaire’ to ‘psychometric text’ or ‘standardised measure’ and provide the name of the scale.

The text has been modified as recommended by the reviewer.

22. Abstract/Results/Line beginning ‘alcohol consumption’: sentence should begin ‘Differences associated with…’

The text has been modified as recommended by the reviewer.

23. Abstract/Results/Line beginning ‘alcohol consumption’: sentence should begin ‘Differences associated with…’

The text has been modified as recommended by the reviewer.

24. Abstract/Results/Line beginning ‘Nevertheless, the factors, my partner..’ should begin ‘Gender-based differences for ‘my partner’ sentence should begin ‘Differences associated with…’

The text has been modified as recommended by the reviewer.

25. Background/Line 1: Should ‘live their sexuality’ be ‘express their sexuality’?

The text has been modified as recommended by the reviewer.

26. Background/para 2/line 7: Should ‘Other factors with a close relation to’ be ‘Other factors which influenced’

The text has been modified as recommended by the reviewer.

27. Background/para 3/line 1: ‘In regards to’ should be ‘with regards to’ – this is repeated throughout the document

The text has been modified as recommended by the reviewer.

28. Background/para 3/line 2: Consider replacing ‘This indicates’ with ‘This suggests’

The text has been modified as recommended by the reviewer.

29. Background/para 3/line 3: Consider replacing ‘mainly’ with ‘in particular’

The text has been modified as recommended by the reviewer.

30. Background/para 3/line 5: ‘This reflects an overvaluation’ – overvaluation by whom?
This part of the text has been corrected and made clearer.

31. Background/para 4/line 1: reasons for not using condoms by whom?

This has now been made explicit in the text.

32. Background/para 4/line 3: Consider replacing ‘been the cause’ with ‘has contributed to’

The text has been modified as recommended by the reviewer.

33. Background/para 4/line 6: Consider replacing ‘discover and analyse’ with ‘examine’

The text has been modified as recommended by the reviewer.

34. Methods/para 4/last line; Change ‘two of the questionnaires’ to ‘two questionnaires’

The text has been modified as recommended by the reviewer.

35. Methods/ethics/line 4; Change ‘process’ to ‘processes’

The text has been modified as recommended by the reviewer.

36. Methods/ethics/line 5: ‘was voluntary and that the information they provide would be kept...’

The text has been modified as recommended by the reviewer.

37. Results/para 1/line 6: For consistency insert percentages after ‘men’ and ‘women’

The percentages have now been included: (men: 79.1%) y (women: 78%).

38. Results/para 2/First line: Remove the first word ‘However’.

“However” has been eliminated.

39. Results/para 3/line 2: Clarify what ‘opportunity’ means

A definition of “opportunity” has now been included in the text.

40. Results/para 7: Line beginning ‘In the case of the variable...’ The sentence needs reworking. It is confusing at present. I’m not sure what ‘partner demand of a condom means’. i.e. whether or not a partner demands a condom is slightly/fairly determining of whether or not they would use protection –confusing!

This part of the text has now been modified to make the meaning more explicit.
41. Results/para 8: Line beginning ‘For 50% of women...’ Not comparing like with like here (not determining/highly determining) and it is confusing.

The text has been modified.

42. Results/para 9/second last line: ‘to be highly determining or not determining’—confusing. Please re-word.

The text has been modified.

43. Discussion/para4/line 3: Consider replacing ‘important’ with ‘strong’ or just leave as ‘correlation’

“Important” has been replaced by “correlation”.

44. Discussion/para4/line 5: Change ‘the perspective’ to ‘the prospect’

The text has been modified.

45. Discussion/para4/line 7: Change ‘It should be asked’ to ‘Further research might examine’

The text has been changed as indicated by the reviewer.

46. Discussion/para5/second last line: the term ‘resolve complex situations related to actual condom use’ needs clarification – what kind of complex situations?

As suggested by the reviewer, this part of the text has been expanded and now includes a more detailed explanation that clarifies its meaning.

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

Quality of written English: Needs some language corrections before being published.

Statistical review: No, the manuscript does not need to be seen by a statistician.

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